A Clinical Lecture ON THE PULSE: ITS DIAGNOSTIC, PROGNOSTIC, AND THERAPEUTIC INDICATIONS.

Being Lecture IV. delivered at St. Mary's Hospital in the Summer Session of 1875,

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GENTLEMEN,—My lecture to-day cannot strictly be called a clinical one; it is, however, on one of the most important subjects connected with clinical medicine: the pulse—the method of examining it, its mode of production, and the information to be obtained from it.

At every visit to the wards I call your attention to the distinctive characters of the different kinds of pulse, and endeavour to impress upon you the value of the indications, diagnostic, prognostic, and therapeutic, to be derived from these. Not to speak of heart diseases for the moment, some of you have seen, during the present session, a diagnosis of renal disease arrived at simply by placing the fingers on the wrist, reversing a first-sight opinion in the direction of syphilitic disease of cerebellum; prognosis, not otherwise obvious, based on states of pulse—of death, or of incurable condition, or of protracted convalescence, verified by the event; successful treatment by active purgation thus suggested, when the prominent complaint was of great weakness. I propose now to systematise these ward-teachings, and explain the basis on which they are founded.

I have long been in the habit of saying that the examination of the pulse was one of the lost arts till it was restored to us by means of the sphygmograph. It was with astonishment that I learnt, when I first took up the study, that every single element of the pulse revealed to us by the sphygmograph had been previously recognised by the old school of physicians, and that a nomenclature existed ready made for all its teachings. It is maintained that this knowledge has never died out, but that it has been perpetuated as a sort of tradition through a succession of able physicians; but if you look through the records of cases in the medical journals you will find that medical men have usually been content to note the rate of the pulse with the addition of an occasional more or less unmeaning remark as to its character. This was not so with our predecessors, who used carefully to describe the exact character of the pulse as recognised by the finger very much as we now do by the aid of the sphygmograph.

Mode of feeling the pulse.—First, let me speak of the mode of feeling the pulse. Three fingers should be placed lightly upon the radial artery. Attention is first to be directed to the frequency of the beats, remembering always, before forming conclusions, that the rate is liable to be influenced by position, by food or drink recently taken (especially stimulants), by exertion (particularly when the patient is weak), or by emotion or excitement. You will make allowance for these disturbing causes; and when dealing with an excitable, nervous, or weak person, keep your hand on the pulse for some time, conversing perhaps on other symptoms or on indifferent subjects, or you may examine the rate a second time, getting an idea of the frequency before looking at the watch, which, by attracting the patient's attention, may send up the pulse by ten or twenty beats. Of course, while ascertaining the frequency, you would note also the regularity or irregularity of the rhythm.

Next, or at any rate as a separate act of attention, estimate the size of the artery, whether large or small, and the resistance it offers to the fingers. I do not mean here the strength of the pulsation, but the feel of the vessel and its general condition. Carry the fingers along it longitudinally on the one hand, and, on the other, try if it can be rolled transversely like a cord. I shall describe later the indications to be derived from the size of the vessel; but I may just say here that degeneration of the artery is revealed by inequalities felt as the fingers glide along its length, and by a kind of rigidity, or if the artery imparts to the finger somewhat of the sensation of a string of beads; while undue tension is recognised by the cord-like character of the vessel during the intervals between the pulsations.

Finally, you test the strength of the pulsation, which, as I shall explain to you later, may differ greatly from the estimate derived from first impressions. I said you should place three fingers lightly upon the artery; you should now, with the finger nearest the heart, steadily exercise compression, till the wave no longer passes to be felt by the remaining fingers. The pressure should then be repeatedly or continually varied with one, two, or all three fingers—now to complete occlusion of the artery, now a mere touch,—till you form a definite idea of the force with which the blood is being driven.

The pulse: what is it?—We must now analyse the information we obtain by the simple act I have described. But, first, what is it that we feel when our hand is on the pulse? Is it an enlargement in the diameter of the artery? or is it an elongation and curving of the vessel—a locomotion, as it has been called? It is neither. I do not absolutely deny that there is lateral dilatation of the artery, or that it is in some places thrown into curves. That there is some increase in diameter in the large arteries has been demonstrated, and sinuous movements may be seen any day in the temporal arteries of an old person; but this is not what we feel, nor what the sphygmograph records. To feel the pulsation in an artery, or to take a sphygmographic trace, pressure must be applied to it; and, as you all know, we must have a bone behind it against which it can be compressed. In the intervals between the pulsations, when the internal tension or pressure by the contained blood is at its lowest, we flatten the tube of the artery more or less; then comes the wave of blood and forces, or tries to force, the vessel back to its cylindrical form; *and this change of shape from the flattened form impressed upon it by pressure, to the round condition which it assumes under the distending forces of the blood within it, constitutes for us the pulse.* Such a pulse can be felt on a larger scale by the foot placed upon the leathern hose of a fire-engine in action, which, I need scarcely say, exhibits no increase of diameter or serpentine motion. This explanation is important.

Factors of the pulse.—There are three factors in the production of the pulse, and of the different modifications of it which we find in practice; and we shall only fully estimate the significance of these modifications by referring them to their respective causes. These three factors are (1) the action of the heart, (2) the degree of resistance to the passage of the blood through the capillaries and arterioles, and (3) the elasticity of the large arteries. On the action of the heart will depend the rate, rhythm, and force, or, in other words, the frequency, regularity or irregularity, and strength of the pulse. On the degree of contraction of the arterioles and the amount of resistance offered to the free passage of the blood by them and the capillaries will depend the size of the radial artery and the blood-pressure within it—in other words, the character of the pulse, whether large, short (or quick), and soft, or small, long, and hard. On the elasticity of the great vessels will depend other modifications; to each of them we must devote a few moments' consideration.

Frequency.—The heart, then, may act frequently or infrequently, regularly or irregularly; and its contractions may be abrupt and rapid, or slow and deliberate—strong, again, or weak. The frequency of the heart's action is under the control of the nervous system. Physiological experiments have taught us that the heart has a system of ganglia of its own, on which its action immediately depends; but that the sympathetic is an excitor, the pneumogastric a controller or inhibitor, of the heart. As yet we cannot apply this knowledge clinically in any important degree, as it is to be hoped we shall some day do, but only reason backwards, so to speak, and say that under given circumstances the sympathetic or pneumogastric is stimulated or paralysed, because the action of the heart is rapid or slow. We need not therefore dwell on these physiological details, but simply mention the more important clinical indications of the pulse-rate. It is not often that is rendered much slower than the normal rate for the individual by disease.*

* This rate, as is well known, varies greatly, 72 beats per minute being the average for adult healthy males. It is more frequent in women of about eighty, and especially in children. But a pulse of 60 is often met with; sometimes perhaps of 40 or even less, or, on the other hand, of 90 or 100.

In jaundice this is sometimes the case. In the intervals of relapsing fever, in the later stages of meningitis, and notably in some instances of fatty degeneration of the heart, slowing of the pulse is met with; so also in some affections of the nervous system. But I do not know that there is much on which I need dwell. Increased frequency is infinitely more common; and, indeed, disturbing influences of whatever kind are attended with this result. Such apparently opposite conditions as pyrexia and debility alike render the pulse frequent. We have no right, perhaps, to put pyrexia and asthenia into contrast, but still they affect the pulse-rate in a different way. Pyrexia, for instance, neutralises to some extent, debility exaggerates, the effect of change from the standing to the recumbent posture.

In pyrexial diseases the pulse-rate is, as I have said, raised, and sometimes the mere frequency has great significance. It has been said to indicate the "alarm" of the nervous system at the attack; and when this expression of "alarm" or "apprehension" of the nervous system is unusually emphatic, we may be sure that the constitution has been staggered by the blow. At the onset of a fever, of whatever kind, a sustained frequency above the rate usual at that stage of the particular fever may be a long way in advance of other unfavourable prognostic indications, which, in most cases, will inevitably follow. When the pulse and temperature are apparently in contradiction, the excessively frequent pulse threatening danger, which is not borne out by excessively high temperature, it is the pulse which we must take as our guide in prognosis. On the other hand, a very high temperature would be a mark of danger independently of excessive frequency of pulse. Usually, however, the pulse and temperature coincide in their indications. It is, perhaps, in puerperal affections that this racing pulse most frequently gives the alarm, while as yet other symptoms have not assumed a serious character. Sometimes, again, an exceedingly rapid and at the same time weak pulse is the most striking feature of an early stage of collapse, and gives the first alarm. In pneumonia a rapid pulse is always indicative of danger, even though the extent of lung involved may not be considerable.

Unnaturally rapid and violent action of the heart for a short time is extremely common, and is known as palpitation. Its significance is very different in different cases; but usually it is of no great consequence. It is a familiar observation that the patients who come to us complaining of the heart, of uneasy sensations or pain in it, or of palpitation, are rarely suffering from heart disease. Nervous and weak people, women especially, suffer from palpitation on the slightest provocation. An emotion, a little exertion, flatulence, or food may set it up; or the heart may suddenly start off without any apparent cause, sometimes during sleep. Gouty and dyspeptic subjects, again, are liable to palpitation. Usually attacks of palpitation are of no long duration, but at times we meet with instances in which the unnaturally rapid action goes on for twenty-four hours or more. Dr. Farquharson has lately contributed an interesting article on this subject to the medical journals. I have also met with several similar cases. Not long ago I was asked to see a lady's maid, who was supposed to be suffering from some sudden affection of the lungs; she was sitting up in bed, with a pale and anxious face, almost gasping for breath, and from time to time coughing a single short cough. Placing my finger on the pulse I found the radial artery persistently full; but the only pulsation to be felt in it was an occasional feeble beat, or rapid succession of several such weak, small beats, followed by a pause. When I came to examine the heart, however, it was beating at the rate of nearly 200 a minute, regularly and equably, but somewhat feebly, which was not to be wondered at, as the attack had already lasted more than twelve hours. This rapid action kept the artery at the wrist full of blood; but few of the individual pulsations reached this vessel, either because they were too weak, or more probably because the brief diastole afforded no time for blood to enter the left ventricle. The usual heart-sounds were not to be distinguished; what was heard was a rapid series of short puffs, reminding me of the sound of a distant locomotive. There was nothing the matter with the lungs; the attack had been induced by over-exertion. I gave belladonna, with ammonia and ether, and the excitement of the heart gradually subsided in the course of another twenty-four hours, and it was then seen that there was no heart disease. The patient was very much shaken, and it was long before she was able to resume her work. I have seen several such cases. In one in which mitral disease was complicated by a tendency to attacks of this kind, the patient would lie insensible for hours while the palpitation lasted, the pupils being dilated and insensible to light. I do not propose to enter minutely on the indications of increased frequency of the pulse. The pulse-rate is universally noted, and receives adequate attention; and I wish to call attention more particularly to the features of the pulse which are less obvious and more neglected.

Rhythm of pulse.—Usually the pulse is regular, and the beats equal in force and at equal intervals. Departures from this rule, however, are not uncommon. They are of two kinds: intermittence and irregularity.

Intermittent pulse.—The rhythm, otherwise equal, may be broken by the occasional omission of a beat—an *intermission*. Frequently the intermission is perfectly regular, a pulsation being missing every fourth, or tenth, or twentieth beat; but sometimes we have, say, ten or twenty beats, then an intermission, and very soon another. When the intermissions are frequent—i. e., every four or six beats—they are more likely to be regular. The most remarkable instance I ever met with was in a man fifty years of age, who had two pulsations and then two intermissions. When counting the pulse, it occurred as one, two beats, then one, two intermissions. The man went out of the hospital in two or three days, to my great regret, and I was unable to make a careful investigation of the case. Intermission of the pulse is rare in young people, and I should think more seriously of it early in life. After middle age it is not uncommon; in some cases it is habitual, in others occasional only, and induced by dyspepsia, constipation, smoking, drinking, &c. One patient of mine has intermittent action of the heart produced by a particular kind of tea, another by a particular brand of cigars. Some patients are entirely unconscious of the intermissions, especially those in whom it is habitual; others feel as if the heart rolled over or stopped, and are made uncomfortable. Although the pulse is absent at the wrist, the heart's action is not usually absolutely suspended; on listening, an imperfect beat can be heard just after the last proper beat, the sounds audible being a feeble first sound and a weak pulmonary second sound. The aortic second sound is usually absent, as if the pressure in the left ventricle had been insufficient to raise the valves, while in the pulmonary artery, where the resistance is less, some little blood appears to pass.

Intermission of the heart's action is usually attributed to some affection of its innervation, and the chief cause is, according to Dr. B. W. Richardson, shock, anxiety, or grief. The subjects of this affection are apparently none the worse for it, and I have met with it in many hale old men long past the usual term of life, and some have said they have had an intermittent pulse for very many years. Still it is stated that, though equal to the ordinary occasions of life, they break down more readily, and withstand attacks of disease badly. An intermittent pulse does not contra-indicate chloroform; I have often known the intermittence disappear during its administration. I am speaking always of those cases in which an intermittent pulse is not a symptom of disease in the walls of the heart, of which there are other indications.

Irregularity of pulse.—The other form or kind of departure from the normal rhythmic action of the heart is generally called irregularity: the pulse is irregular both in force and frequency; the beats are unequal in strength, and follow each other at irregular intervals. The most common and striking instances of irregularity are those resulting from mitral regurgitation. In fact, this is the condition which of all others is attended with irregular pulse. Other diseases of the heart, whether of its walls or valves, give rise to conspicuous irregularity of the pulse only when the heart is failing or when it is tried by some pulmonary or other complication; but in mitral regurgitation it goes on for years. I do not know that there is any generally accepted explanation of this, but we may seek one by the method of exclusion. The irregularity of the pulse cannot, then, be due to any structural change or functional weakness of the walls of the heart or to any derangement of the cardiac innervation, or it would accompany other heart diseases. It cannot, again, be due to simply the influence on the dilated right ventricle of the respiratory movements, or it

would occur in mitral constriction, in which the right ventricle is also dilated. One cause, no doubt, is the variable amount of blood which escapes back into the auricle, or, rather, which the ventricle finds to propel into the aorta: in one systole the valves get better into position, or they are backed by good pressure in the auricle and pulmonary veins, the ventricle meets with a due degree of resistance and sends on its contents into the systemic arteries; in another, for some reason or other, the regurgitation is considerable, the ventricle has no work to do, is disappointed, contracts hurriedly, and is thrown out of step. But I am disposed ultimately to attribute it, more than to anything else, to the varying pressure on the dilated left auricle during respiration; more particularly to the negative pressure or suction action on this auricle in inspiration preventing it from contracting fully and carrying its blood on into the ventricle. But I ask myself, why have we not the same result in mitral obstruction, when the auricle is even more dilated; or in tricuspid regurgitation, when the right auricle and ventricle are similarly situated? The explanation is incomplete unless we can answer this question. I shall consider this more fully on some other occasion, but I may say briefly that an answer is to be found in the difference between the steady pressure in the pulmonary veins and left auricle in mitral constriction and the fluctuating pressure in regurgitation, and again in the fact that the right auricle receives veins from outside the chest, and during inspiratory suction fills itself from them, while the pulmonary veins, as well as the left auricle, and even in a greater degree, are exposed to the negative pressure of the active inspiration.

That the action of the heart is greatly influenced by the respiratory movements is well known, and can be made evident at any time by taking a deep inspiration or by holding the breath; and the nearest imitation of mitral irregularity of the pulse is met with in bronchitis and emphysema, in which respiration is laboured.

Other conditions attended with irregularity of the pulse are some affections of the nervous system.

Force or strength of pulse.—As to the strength of the pulse, I have told you how it is to be estimated. It is of course entirely dependent on the force of the heart's action, but the apparent strength is greatly modified by the condition of the artery. If the walls of the vessel are relaxed, its calibre is enlarged, and at the same time the general tension or blood-pressure within it is low, so that in the intervals the artery is easily flattened by the finger; under these conditions the sudden filling of the large vessel gives the impression of a very forcible pulsation, which may sometimes be corrected or reversed by finding that it is easily extinguished by pressure. On the other hand, if the artery is contracted and small, the tension will be high; it will not be flattened by the degree of pressure usually applied in feeling the pulse; the pulsation therefore will be comparatively slight; but let the attempt be made to extinguish it, and the real strength will become apparent. It is of the greatest importance that you should be alive to this.

There are circumstances in which the pulse is really feeble, and not apparently so merely, while the heart is beating with great force, and this quite independently of disease of the valves. For instance, in pneumonia or bronchitis there is often so much obstruction to the pulmonary circulation that the blood does not reach the left ventricle in proper quantity, and a forcible contraction of the ventricle has no effect on the arterial system, unless there is blood to be expelled; the pulse therefore is weak and small, and the face pale, while the action of the heart is very powerful. A similar result is sometimes produced by mere excessive frequency of the heart's action: the diastole is so short that the ventricles have not time to fill, and cannot therefore send on blood.

One more point with respect to the action of the heart. This may be deliberate or sudden. I have avoided the use of the terms "slow" and "quick" in speaking of rates of pulse, because they have a double application—to the mode as well as to the frequency of the heart's contraction; whether, that is, the contraction is deliberate, and occupies an appreciable time, on the one hand, or is swift and soon completed, on the other; or, in other terms, to the character as well as to the rate of the pulse—whether, namely, this is long, and lingers under the finger, or short, sudden, and gone immediately. The heart, of course, contracts with very different force at different times, but, the force it exerts being equal, the gradual or abrupt character of the contraction will depend entirely on the resistance it has to overcome. If this is considerable, the contraction is steady; if very slight, it is abrupt. Now the resistance is determined by the state of the peripheral arterioles, and we are coming to the consideration of this—the second great factor of the pulse.

Condition of arterioles as a factor of pulse.—You are all aware that the function of the arterioles is to regulate the blood-supply to individual parts. This it does by means of the muscular fibres in the walls of the minute bloodvessels; and under the influence of the sympathetic nerve, which is the motor nerve of these fibres, you have the muscular walls contracting and narrowing the vessels. There is also said to be an active dilatation of these vessels, not mere distension. Now not only are particular arteries relaxed or contracted, but at times general relaxation or contraction of all the vessels throughout the body occurs, though dilatation of one very large arterial area will affect the general blood tension; as, for example, of the gastro-hepatic system, after taking food, when the blood-pressure throughout the body is reduced. You will easily see the effect of dilatation or contraction of these minute arteries on the pulse. When the muscular walls of the vessels are in a state of relaxation the diameter is increased, and the pulse feels *large*. The blood is more easily and quickly propelled through a wide tube; the pulse is therefore *quick* or *short*. Finally, there being little resistance, there can be no sustained pressure; you have low arterial tension, the pulse is therefore *soft*.

If the vessels be contracted, the converse occurs in each particular: the artery feels contracted—that is, *small*,—the blood takes a longer time to travel through it, and remains longer under the finger; the pulse is, therefore, called *long*. The resistance to the passage of the blood requires high pressure for its propulsion; the pulse is, therefore, *hard*. By arterial tension or intravascular pressure is meant the pressure of the blood on the walls of the containing vessels, or the distending force within the vessels. The characteristics of a pulse of high tension are that it is small, long, and hard. But, before the pulse can be studied as a whole, the elasticity of the walls of the large arteries must also be taken into account. This equalises the blood-stream, and promotes the flow. We may illustrate this by a simple experiment:—Take two tubes, the one rigid and the other elastic. If now water be pumped through them in intermitting jets, it will issue from the rigid tube in a similar manner to that in which it entered it—namely, by jets; while from the elastic tube it will flow in an uninterrmitting though pulsatile stream, and a larger amount of fluid will pass in a given time. Other less obvious modifications of the pulse will best be illustrated by means of sphygmographic tracings, which we shall briefly consider in the next lecture.

BEQUESTS, &c., TO MEDICAL CHARITIES.—Mr. Richard Minter Mount, of Wingham, bequeathed £10,000 to the Kent County Ophthalmic Hospital, Maidstone, £100 to the Kent and Canterbury Hospital, £100 to the Canterbury Dispensary, and the "residue" of his estate to the Royal South London Ophthalmic Hospital. Mr. Thomas Bless Pugh, of Clapham-road, bequeathed £3000 to the Royal Sea-Bathing Infirmary, Margate, £300 to the London Fever Hospital, £300 to the Samaritan Society of St. Thomas's Hospital, and £10,000 Consols, at the death of his wife, to the Medical Benevolent College at Epsom, for the creation of pensioners to receive annuities without residence. The Rev. Henry Charles Morgan, of Goodrich, Herefordshire, and Oakfield, Berkshire, bequeathed £1000 each to the Royal Berkshire Hospital, the North London Consumption Hospital, University College Hospital, Middlesex Hospital, London Hospital, St. Mary's Hospital, St. George's Hospital, Queen Charlotte's Lying-in Hospital, Lock Hospital, Westminster Hospital, King's College Hospital, Royal London Ophthalmic Hospital, Earlswood Asylum for Idiots, Hereford Infirmary, Society for the Relief of Widows and Orphans of Medical Men, and the Ross Dispensary; and £100 to the Metropolitan Free Hospital, Devonshire-square. Mr. John Spriggs Morse Churchill, of Pembridge-square, bequeathed £500 each to the Royal Medical Benevolent College at Epsom and the Medical Benevolent Fund.

Clinical Lecture
ON
SOFT CHANCRES IN THEIR RELATION TO SYPHILIS.

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AMONGST the important practical questions which are connected with this subject we have chiefly—1st, At what period in the course of a chancre can the surgeon venture an opinion as to its nature? 2ndly, Are the characters of the two forms of chancre, soft and hard, often mixed? And 3rdly, Can a chancre which presented at one stage all the characters of a soft one subsequently become indurated? If I have made my meaning clear in what I have already said, you will be at no loss to find an answer to these questions. My position is that the soft sore results simply from pus-contagion, this pus being more or less peculiar, and its peculiarities being due to its having originated in syphilitic inflammation. I have insisted that this pus may or may not contain the germ-matter of syphilis. We are therefore much in the position of a farmer who sows in his field two seeds mixed together of very different rates of germinating power—clover and barley, for instance. The one which grows quickest is the one which first attracts attention, and it may be that one conceals the other. So it is if the fluid which conveys syphilis be an admixture of contagious pus and the specific germs of the true disease. The pus will irritate directly; the syphilitic germs need their period of incubation. Thus you will have first an inflamed pus-secreting ulcer, entirely free from induration. This may go through its course and heal, and then, at the end of a month, when the syphilis-incubation period is past, you may find proof in the induration which comes on that another and wholly different kind of seed had been sown at the same time. It is much the same as with the farmer when he cuts down his barley and finds the clover growing at the bottom. I might carry this agricultural simile yet further, and might remind you that if the barley has been particularly heavy, if it has been laid and matted, it may kill the clover altogether. It is just so when a contagion of mixed material occurs in syphilis. If the soft sore is a very bad one—or perhaps I ought to use the reverse epithet,—it may altogether destroy the germs of the other poison which were implanted with it. Probably in this way many a soft sore does really prevent the development of a hard one. In practice, however, this happy result is by no means universal, and it is a very common event to see a transitory soft sore followed by specific induration.

Let me here insist upon the extreme importance to the reputation of the practitioner of the rule never to give an opinion as to the nature of a chancre until the incubation period is over. Patients will come to you with sores contracted a few days or a week or two before, and will expect you to be able to tell them whether or not they are likely to have syphilis. Now, there is never anything in the conditions which are either present or absent which will justify the most practised observer in giving any opinion at such a stage. It is very rare indeed that an infecting sore acquires any induration within three weeks of the date of contagion, and more commonly it is a month or five weeks. Until such induration takes place, nobody can tell whether it is coming or not.

Very various indeed are the conditions which may have been present during the preceding period. Your patient may have had a soft sore, which may have been severely inflamed, or even phagedænic; he may have had a bubo, and that bubo may have suppurated; or he may have had no sore at all, and no bubo. Let your rule be, I repeat, to give to your patient no opinion whatever as to his chance of escape until he can assure you that it is one month since his last exposure to risk. It is a matter of constant experience to be told by patients that the medical man first consulted assured them that the sore was only a soft one, and would not infect; and, under such circumstances, it is always very difficult to restore the patient's confidence in his adviser's knowledge. If the contagion of syphilis were always effected with the same care as to purity of the virus as is exercised in the case of selection of lymph for vaccination, it would not have been necessary to teach this doctrine of caution now. No one thinks of speaking as to the prospect of the success of vaccination during the first few days, nor would he be able to do so even so soon as that were it not that the vaccine vesicle is enabled to develop itself uncomplicated by other morbid processes. It is not so, however, with syphilis, and hence the variety of the results which we witness during the first two or three weeks after contagion. If the virus be introduced in a pure, or almost pure, state, then it is probable that in many cases the patient experiences nothing excepting, perhaps for a few days, a little red pimple, which disappears, and leaves him, as he thinks, quite well for another three weeks or a month. At the end of that time the part begins to itch a little, and again becomes red, and gradually within a week or so a well-characterised induration is developed. If, however, the contagion have been effected by a mixture of contagious pus and specific virus, then you have a very different course of things. Within the first few days the contaminated part may inflame sharply, and an ulcer may result which will probably send the patient in great alarm to his surgeon. This sore is, of course, soft; it secretes freely, and its secretion may contaminate other parts, and you may have what are termed multiple soft chancres. You may inoculate it, if wished, on the patient's skin, and produce other similar sores, and thus prove that you have to do with a non-specific secretion. But all this does not prove that the specific poison is not there, and whatever may be the course of these soft sores, whether easy to heal or obstinate, there remains the risk that specific induration may ultimately be developed. Probably the worse the sore, the more the inflammation, and the deeper the ulceration, the greater is the patient's chance that the specific virus may be thrown off; whilst if the sore heals in a few days the danger of true syphilis is considerable. We often, from patients who are the subjects of tertiary disease, hear the statement that the original sore healed in a week, and gave scarcely any trouble. Such cases are, I suspect, examples of the early healing of a conspicuous soft sore, which was followed some weeks later by an inconspicuous and unobserved hard one. Should the soft sore, however, be of protracted duration, it is, I suppose, possible that its characters may extend over the whole period of induration proper to the specific one. Under these circumstances the characters of the specific sore may be masked, and even good observers may never have been able to detect the characters of specificity in sores which yet proved infecting. At any rate, I am sure that you must be prepared to find that occasionally syphilis will follow from sores which you have had frequent opportunities of examining, and which from beginning to end you had thought to be soft and suppurative. If the sore should not only ulcerate, but become phagedænic, it is then usually quite impossible to diagnose induration; yet, under such circumstances, secondary symptoms often, or indeed usually, follow.

If the argument which I have used be correct, it follows that whenever you detect induration you will be certain that constitutional syphilis will follow, but that, however sure you may be of the absence of induration, you can entertain no security unless a long period has elapsed. You will ask, naturally, If this be so, would it not be well, bearing in mind the very serious consequences which syphilis entails, to deal with all soft chancres as if they were infecting ones? Candidly, my belief is that there would be great wisdom in adopting this rule, at any rate so far as local applications are concerned. In very many cases I have no doubt that the soft sore occurs exactly over the site of a coming induration; and should your patient consult you within a reasonable period of the exposure to contagion, I cannot but think that it is good practice to destroy it by deep and free cauterisation, rather than to attempt merely to make it heal. Some of the published records of attempts at abortive cauterisation of chancres prove that it is not

possible in all cases to prevent the subsequent development of induration; but a few failures of this kind by no means make it certain that the practice would not be productive of good results in the long run. It might fail sometimes and succeed sometimes. It unfortunately happens that we should know when we failed, and should never know when we succeeded. It is very difficult, however, to believe that the progress of imbibition of the syphilitic virus is so rapid that there is no stage during which it exists only in the contaminated spot. How long this stage may be it is exceedingly difficult to tell, but for the present I cannot but think that it is wise to act as if it comprised the first week or ten days after inoculation. I have been alluding hitherto only to treatment with the object of utterly destroying by cauterisation the portion of tissue in which the poison is suspected to lurk; but there remains the question as to how early we ought to attack the virus by its antidote. It is, I am glad to believe, becoming increasingly the rule of English practice to give mercury as soon as ever specific induration can be recognised; but it is quite possible that we may, in the future, go further than this, and think that it is best to prescribe this remedy for all sores occurring within a month of contagion. We should no longer do so under the impression which formerly prevailed, that it was necessary in order to make the sore heal, for we now know that the soft sore is not syphilis, and cannot be influenced by its specific. The reason for giving it would be the fear that the patient may be passing unnoticed through the incubation stage of a true chancre. The soft sore proves that he has been contaminated with venereal pus, and shows that it is not improbable that he may have received the syphilitic virus also. It is quite possible that the antidotal efficacy of mercury may be much greater in the early stage than in the later ones. I wish, however, to have it distinctly understood for the present that I am merely suggesting, and not recommending. I am often pressed by patients to allow them to take mercury on speculation for soft sores, but hitherto have for the most part declined to do it; my reason being, that until some proof has been afforded that we have to deal with true syphilis, we have no data by which to determine the requisite length of treatment.

THE

TREATMENT OF SECONDARY AFFECTIONS OF THE HEART.

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THIS class of affections of the heart is a very large one, becoming of more and more importance as the power to recognise such affections enlarges. This form of heart ailment, for it is not strictly correct to term it "heart disease," is largely found in persons of advanced life. It is this class of affections which has been found so intractable to the well-worn remedial measures ordinarily in use. The consequences of such measures usually were very unsatisfactory; often, indeed, the results of treatment were a condition more intolerable than the primitive one for which relief was sought. That such should be the case is in no wise incomprehensible when we reflect upon the very imperfect physiological knowledge of most practitioners; and when we consider how physiology held the only key which would unlock the approach to a knowledge of how the heart could be affected secondarily, and how accordingly the plan of treatment was to be directed.

It is not the writer's intention to allude in this place to genuine neurosal affections of the heart. In order to make clear what secondary affections of the heart are, it will be necessary to review briefly some points in connexion with the circulation. The heart in its contraction, or rather in the contraction of the ventricles, and more especially the left ventricle, has to overcome the resistance offered to its contraction by the fluid contents of the arteries. If the arteries are tensely filled with blood a more powerful ventricular contraction is required to force the blood from the ventricle into the arteries than is necessitated when the arteries are comparatively unfilled. This is intelligible enough; it would be surprising if it were not so. Conditions of sustained high arterial tension usually result in hypertrophy of the left ventricle, as is seen so commonly in chronic Bright's disease. Under these circumstances the hypertrophy is not a disease—it is a compensatory growth; and it is a fortunate circumstance for the patient that such growth is set up. Unfortunately, however, some confusion exists on this matter, and one man regards this hypertrophy as a disease, and speaks of it as such, while another has learned to recognise in it a conservative growth by which the patient's existence may be prolonged, and consequently he neither regards it nor speaks of it as a disease. This apparent antagonism of medical opinions is often very perplexing to the patient, and it is very desirable that a more distinct understanding should exist on this matter. If the different medical gentlemen could only have an opportunity of talking the matter over together, the apparent contradiction would vanish, and this result would be very acceptable to the patient.

Where such hypertrophy exists in good degree, the rule is that the patient does not feel ill, and consequently does not consult the profession. At other times the heart is unequal to the demands upon it, and consequently falters. Then the patient goes to a medical man for aid. If the resistance offered by the blood already in the arterial system is greater at one time than another, then there usually results a condition of matters of this kind: at times the heart is equal to the successful overcoming of the resistance offered to the ventricular contraction, and the patient feels well; at other times the heart is not equal to the effort required, and then palpitation, a laborious effort, or irregularity in the heart's action is induced, which alarms the patient and leads to his consulting his medical man. If the true state of matters be not recognised, that consultation will be of small avail to the patient.

It is obvious enough that under these circumstances the heart is not primarily at fault, and that the correct treatment is not to spur on the heart, but to relieve the condition which causes the heart to give evidences of lack of capacity. In order, however, that this may be done, it is absolutely requisite to bear in mind clearly the physiology of the circulation. The heart is a hollow muscle which, by its contraction, throws a certain quantity of blood rhythmically into the elastic arterial system. By virtue of its elasticity, the arterial system maintains a steady flow in the smaller peripheral vessels. All arteries contain muscular fibre; in the large vessels the muscular fibre is present in but small proportion; in the smaller vessels the wall is comparatively muscular. By contraction of the muscular walls of these smaller vessels their lumen is diminished, the blood-flow through them is obstructed, and then the blood-pressure in the larger vessels rises,—in other words, there is an increase of arterial tension, and then the heart is involved; the ventricle must either contract more powerfully or the heart is embarrassed. If the ventricle is equal to the demand upon it all is well, and the person is unconscious of the working of his heart; if not quite equal to the demand, the heart's action will probably attract the attention of the individual.

It is only within the last few years that we have known anything accurate about arterial tension. We were all familiar with the firm, incompressible pulse of well-filled arteries, and the slow steady action of the heart which accompanies this condition in health; and also the opposite condition of unfilled, easily-compressible arteries, with the fast action of the heart which goes along with this state of matters. More recently, however, the invention of the sphygmograph has rendered the varying condition of the vascular system more demonstrable, and even written them on enduring tracings. These tracings are not mere matters of curiosity. They form ocular demonstrations of the condition of the arterial system; they are faithful witnesses of the actual state of matters, and their testimony undergoes no impairment of accuracy by time—there is no traitorous memory to fear in their case. In 1866 Dr. Lauder Brunton observed, by means of the sphygmograph, that during an attack of angina pectoris the blood-pressure rose. Hitherto this terrible affection had been regarded as a primary failure in the heart itself. All the remedial measures usually employed in these cases were tried, and

proved simply useless, and the man was about to leave the Edinburgh Royal Infirmary unrelieved, when a bright thought crossed Dr. Brunton's mind. He bethought him that experimental research had revealed an agent which dilated the arteries, and especially the small terminal arterioles. Theoretically, this agent should counteract the arteriole contraction, on which the increased arterial tension rested, and so relieve the embarrassed heart. The result demonstrated the correctness of the inference, and the dreadful attack was at once shorn of its terrors. This beautiful practical application of knowledge, reached by physiological experiment, attracted at once the attention of the late Dr. Anstie, and he tried this remedy in a similar case with like results. This correct synthesis erected by Dr. Brunton has opened up a much wider field in the territory of therapeutics than was ever anticipated by him at the time. Not only is nitrite of amyl—as this agent is termed—achieving great results for itself, but it has pointed out a new direction, a new line of practice, for the successful treatment of a very large class of affections of the vascular system. The relief of an embarrassed heart by abolishing the condition of the terminal vessels by which this embarrassment was brought about, was the foundation-stone of what promises to be a goodly therapeutic structure.

It has long been known that hypertrophy of the left ventricle was very common in chronic Bright's disease, and that in such cases the muscular wall of the arterioles was also thickened. The researches of Johnson, Traube, and Grainger Stewart have established this beyond dispute. The obstruction offered to the blood-flow by these hypertrophied arterioles stands in a causal relationship to the ventricular hypertrophy. Not only so, but a rise in arterial tension is found to be the cause of much disturbance in the heart. Especially is this the case in persons of middle age and of advanced life. It is in them that we find the true angina pectoris—not mere neurosal angina,—whether in its fully developed or in its imperfect forms. Its fully developed form is a comparatively rare but well-marked disease; its imperfect forms are very frequent, variable, and more or less obscure affections. What is practically worse, these forms of imperfect angina are but badly understood, and, from their rooted antipathy to the study of physiology, many practitioners are even unaware of the actual existence of such conditions of the vascular system. Having once learned to recognise the forms of the affections of the heart dependent upon increased arterial tension, their detection and the appropriate treatment suited to them become easy and effective. Cases that before were intractable and unintelligible are now recognisable, and consequently can be beneficially treated. It has been found that to spur on the heart in these conditions by digitalis and iron produces a hammering action of the heart—an additional cause of distress—in many cases, while in a few or none is relief experienced. As a matter of fact, it is not good treatment in such cases to approach the heart first, but rather to reach it indirectly by removing the condition of the arterial system which embarrasses the heart. Once remove the abnormal condition in the peripheral vessels, and then the blood-pressure in the arteries falls and the heart is relieved.

The conditions under which abnormal arterial tension is produced are chiefly those of lithiasis and hysterical spasm of the arterioles. A low temperature produces an increased arterial tension from the contraction of the cutaneous vessels. This was well seen in a patient of mine at the West London Hospital, who suffers from aneurism of the ascending aorta. He observed himself that during the cold weather of last Christmas the tumour was more prominent, and the pulsation more distinct; while in the warmer weather which followed, the aneurism was quieter, less prominent, and its pulsations calmer. When there is a rise in the arterial tension, the heart will be less or more embarrassed according to the amount of the rise on the one hand, and the condition of the heart on the other. If the rise be great, even a strong and hypertrophied heart will palpitate and give out active evidences of its incapacity to cope successfully with the increased obstruction to be overcome at each systole. If it be small, the strong heart will not render its owner conscious of what is going on. But if that heart be but hypertrophied to a slight degree only, the lesser rises of arterial tension will embarrass it; if there be no hypertrophy, and the heart be feeble or dilated, slight rises, like slight efforts, will call out evidences of cardiac adynamy. It is obvious that betwixt the two extremes a multitude of combinations is possible, and, as a consequence, each case has to be carefully appraised as to its different factors, after it has been relegated to a certain class. This it is, in these cases, which tests the knowledge of the medical attendant—firstly, as to his general acquaintance with this class of ailments; and, secondly, as to his capacity to estimate the exact requirements of each individual case.*

It also does not follow that in chronic Bright's disease there is necessarily a purely hypertrophied left ventricle, especially in women; in them it commonly happens that there is a tendency to dilatation. Consequently, when there is any accumulation of nitrogenised waste in the blood, producing arteriole spasm and a heightened blood-pressure within the arteries, there are evidences of cardiac embarrassment present. When there is genuine hypertrophy of the left ventricle there is usually good general health, fair and often great capacity for exertion, an atheromatous condition of the arteries—a slow and gradual pathological change,—and a liability to apoplexy from the high arterial tension rupturing the thin-walled cerebral vessels. In these cases the heart only becomes an object of attention after fatty degeneration of its structure has cut down the capacity furnished by the hypertrophy, and that is in the later stages of the malady. But when there is not genuine hypertrophy, but only a combination of hypertrophy and dilatation, in various proportions, the cardiac complications often attract attention, and call for treatment. These cases form a large proportion of the cases of heart trouble in persons at or over middle age which we are called upon to treat; and, for successful treatment, it is absolutely necessary that the exact pathological condition be recognised, and the indications for treatment so furnished be correctly estimated.

(To be concluded.)

CONTRIBUTIONS TO AURAL SURGERY.

BY W. B. DALBY, F.R.C.S., M.B. CANTAB.,
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No. II.—ACCIDENTS TO THE EAR.

(Continued from vol. i., p. 753.)

AN account of accidental rupture of the tympanic membrane would be incomplete if mention were not made of this injury as a very frequent result of injudicious attempts which are at times made to extract a foreign body from the external auditory meatus. Any out-patient room devoted to affections of the ear, and every-day experience, will afford ample evidence of the occurrence of such mishaps.

When a child has, or is believed to have, a cherry-stone, a bead, a piece of slate-pencil, a stone, or what not, in the ear, the proceeding which is commonly adopted to effect its removal consists in laying the child down on the side opposite the ear to be operated upon, and some sort of forceps or other instrument ingeniously constructed for the purpose is pushed into the meatus with the well-meant intention of seizing the foreign body and withdrawing it. What then often happens is this. The foreign body, not being immediately captured, on the first touch of the instrument slips down the deep curve which the floor of the bony part of the meatus takes in the direction of the tympanic membrane. A little further groping in the dark now readily ruptures the membrane, and this may be, and often is, effected at leisure if the patient is placed under chloroform; for, inasmuch as the process is extremely painful, it is found that he or she will not submit without so much struggling as to be embarrassing to the operator. The oozing of blood from the meatus will show that the membrane has given way, and in the course of a few days this is still further evinced by the appearance of a purulent discharge from the ear.

* The widely different prognosis in various conditions of hypertrophy and dilatation—where the objective symptoms are alike,—according to the accompanying general conditions, was shown in a communication by the writer to THE LANCET in May (16th and 30th), and June (6th), 1874.

The frequency of such *accidents* (if such a term is applicable) may be gathered from the fact that during the past session, out of five cases which applied on two successive out-patient days at St. George's Hospital, three on one day and two on the other, the course of events had taken place in the manner described in four. In the first, a small stone had been pushed through the membrane into the tympanum during the course of four attempts which had been made to remove it, two without chloroform and two with. In the second case, a bead had been pushed through the tympanic membrane. In both instances the meatus was very much swollen, there was a purulent discharge from the ear, and in the course of three weeks, when the swelling had subsided, and the ears had been daily syringed by the children's mothers, the stone and bead respectively came out, leaving of course considerable deafness. In the third case, where no attempt had been made to remove it, whilst light was reflected through the speculum, a stone was seen and readily removed with a small pair of ring polypus forceps. In the fourth and fifth cases there was no foreign body in the ear, but the account given by the children and their parents had been thought sufficient to justify interference, which was followed, of course, by a result similar to that which had occurred in the first and second cases. Numbers of such examples might be brought forward, but these will suffice to show how exceptional it must have been for the past generation of students to be taught a simple and ready mode of examination of the external auditory canal. Such an explanation of the *accidents* here mentioned can be the only one admissible, for it is otherwise inconceivable that such surgery could be possible in the present day.

In connexion with this subject, it cannot be too forcibly impressed on the minds of students that by the help of an ordinary ear speculum and an eight-inch focus reflector, the entire meatus and tympanic membrane can be so illuminated that the presence or not of a foreign body may be demonstrated beyond doubt, and that no attempt whatever to remove it should be made unless the canal is at the time thoroughly exposed to the sight of the operator by means of a similar reflector fastened to his forehead by a band round the head—in fact, a laryngoscopic mirror. With this precaution, and ordinary care in the handling of any instrument, the rupture of the tympanic membrane or other injury should be impossible; and, inasmuch as all manipulations should be painless, an anæsthetic becomes necessary only in the case of very young children in order to ensure perfect stillness.

Occasionally, however, even with these precautions, the removal of a foreign body from the ear is extremely difficult. This is especially so when it has passed beyond the part where the floor of the bony canal dips downwards, as then it at once slips to the further end of the meatus and is not easily laid hold of. If the object is small, and lying loose in this situation, it will often come out by simply syringing. If it has rugged edges, some point of it may be seized with small rectangular forceps; sometimes a loop of wire can be passed beyond it, and so it may be withdrawn. I have removed cherry-stones, pieces of slate-pencil, and other objects, that will roll, but are grasped with difficulty, by the help of a small steel hook; and when a foreign body has been lying in close contact with the membrane, have resorted to a plan some time since suggested by M. Löwenberg, of Paris, and to which reference was made in a former communication to THE LANCET in 1872. "The end of a rod is dipped into melted glue; the point thus armed is held in contact with the foreign body until the glue has hardened (about twenty minutes suffices for this); the rod is then withdrawn, bringing away with it the foreign body." In short, after a good view has been taken of the object to be removed, some one of many modes of procedure will usually suggest itself as the most appropriate in the case under notice; and if one fails, another must be tried. It should also be remembered that no harm will happen by waiting, for, often enough as the ear has been injured by attempts at help, if not interfered with, most things that find their way into the auditory canal (lined throughout as it is with skin) are of themselves as harmless as if held in the hand. Exceptions to this are very rare. Amongst them I may here refer to a case which I reported in the "Transactions of the Clinical Society," in which some plaster of Paris in a semi-fluid state was accidentally poured into an ear, and, rapidly becoming hardened, was only removed after a great deal of anxious trouble; and to another curious instance of the same class of accident, in which, during the past year, I removed, on three different occasions, a piece of a needle. Each piece was deeply imbedded beneath the skin of the meatus, rather more than half way down the passage, and when taken away the three pieces made up the entire needle. The patient, a young lady, had complained for a long time of great pain in the ear, and on examination a very small piece of the needle could just be detected appearing through the skin; this was seized with forceps and withdrawn. The other two pieces were taken out in like manner some days later. No history whatever to account for the presence of the needle could be obtained. From the position of the pieces they could not have been put in by the patient, and indeed there were no grounds for suspecting this.

The mental distress which persons often exhibit from the idea of having something in the ear is familiar enough to us all; and, especially with women, it is not always easy to convince them of their mistake after an examination of the meatus has shown their fears to be groundless. Sometimes whilst picking the ear with a pin they prick themselves, and, dropping the pin, believe it to have been left in the ear. No doubt the energetic endeavours which are made to extract the pin are not unfrequently urged upon the operator, whose ignorance of the whereabouts of the pin is no bar to his enterprise. Within two weeks of writing this I had occasion to examine the ear of a young woman supposed to have a pin in her ear, whose tympanic membrane had been lacerated in the course of a prolonged attempt (which it was proposed to repeat that day) to extract it. As might be expected, there was no pin in the ear. When a foreign body is found impacted in the meatus, it has become so in consequence of considerable violence being used, either at the time it was placed in the ear or subsequently, and no attempt should be made to remove it until all the irritation thereby caused shall have subsided. When it is added, that so lately as during last year a case was recorded in which a child died from meningitis induced by violent measures which were used to extract a stone from the ear, enough will have been said to show the urgent necessity of warning students of the injury they may do, in regard to these cases, unless they proceed with such caution as common sense would seem to dictate, but which does not appear to have received such general attention as is desirable.

Savile-row.

CASE OF

ACUTE CONGESTION AND INFLAMMATION OF THE LIVER;

RAPID INCREASE OF SIZE; EMPLOYMENT OF ASPIRATOR, FOLLOWED BY CONSIDERABLE AND PROMPT RETRACTION OF THE LIVER.

BY HENRY BLANC, M.D., M.R.C.P.,

SURGEON-MAJOR H.M. INDIAN ARMY, SUPERINTENDENT OF THE YERRAWDA CENTRAL GAOL.

AGA KYENK-KHAT, a Burmese life convict, aged forty-eight, blind, and seven years in gaol, was admitted into hospital on the 19th of June last with intermittent fever. On account of his blindness this man did no work. He was soft and flabby; but, apart from previous slight attacks of intermittent fever, he had generally enjoyed good health. His present attack was a mild one. On the 22nd of June he complained of pain in the right hypochondrium. A perceptible hard swelling was found to exist in this region, extending laterally and upwards towards the epigastrium and downwards towards the umbilicus. On percussion, dulness was found to begin *anteriorly* a little to the right of the ensiform cartilage, extending downwards in a straight line for about four inches; *laterally* the dulness could be followed some seven inches along the margin of the false ribs, and extending *vertically* from the upper margin of the tenth rib to four inches below it. The swelling occupied the space included between these lines. Deep pressure provoked considerable pain; and percussion, however gently

made, was very painful. Measurement across the base of the thorax, keeping over the tenth rib, gave thirty-one inches; and two inches and a half below the false rib and over the most prominent part of the swelling it gave thirty-two inches. Skin cool; temperature under the tongue 96·2°. Pulse small, without resistance, and infrequent. Heart's action very weak; beat of apex not visible nor felt. No cough. No abnormal sound in chest. Breathing weak; respiration 22. He does not sleep at night on account of the pain in the side. Bowels costive; tongue dryish; appetite bad. Urine scanty, light-brown, and slightly acid; density 1025; slight cloudy deposit by heat and nitric acid; no bile pigment. Ordered a mild saline and carminative aperient; an ounce of brandy, the yelk of two eggs, and half an ounce of white sugar, in a pint of milk—half to be taken morning and evening; a diet of rice and mutton broth; also fomentations to the side, followed by the application of collodion.

24th.—Improvement in general condition. The pulse is better, more resistant; bowels freely open; appetite improved; tongue moist. Pulse 90; respiration 34; temperature in armpit 97·2°, in rectum 10°. The breathing is somewhat frequent; no cough; no dulness on percussion; no abnormal sound. He complains of considerable pain in the hepatic region; the swelling has increased and is more globular; no fluctuation. Measurement: Along tenth rib, 34 inches; two inches and a half below false ribs, 34 inches.

Dr. Cruickshank and Dr. Simpson, who kindly saw the patient in consultation, were with me of opinion that the swelling was due either to the presence of a deep abscess or to considerable congestion proceeding to inflammatory action. The man's general condition was not favourable. His habit of body, caused by his forced sedentary life, would alone have made the prognosis doubtful; the heart was evidently very seriously affected, and had almost lost its propulsive power. Relying on the favourable report given by Professor Maclean, of Netley, on aspiratory punctures of the liver, we agreed to operate, believing that, even should we fail to give relief, still we possibly could do our patient no harm. With No. 2 trocar of Dr. Potain's aspirator, a puncture was accordingly made in the most prominent part of the swelling—i. e., three finger-breadths and a half below the right false ribs, and four finger-breadths from the mesial line. About an ounce of black blood was withdrawn, and, under the microscope, we observed mixed with it a few pus-globules.

25th.—Morning: Passed a good night; pulse fair; less pain on percussion. Temperature in rectum 102°; pulse 92; respiration 26; urine slightly albuminous.

26th. — Evening: Temperature, rectal, 100; pulse 90; respiration 26. Continue stimulant draught. He had passed a good day.

29th.—Did not sleep last night; complains of much pain in hepatic region. Pulse firm, more resistant, 90; rectal temperature 100°, in axilla 98. Treatment: Application of eight small caustic issues to the side; mild saline aperient, with carminative in the morning; continue brandy-and-eggs; two grains of opium at night.

July 1st.—For the last two days he has felt less pain and sleeps well; the appetite is pretty fair; œdema is making its appearance in different parts of the body, specially in the left leg and arm. Continue brandy, eggs, and same diet.

2nd. — Liver decreasing rapidly in size; measurement along tenth rib 29 in.; two inches and a half below, 30 in.; general anasarca more marked. Pulse very small, infrequent, regular; urine scanty, high-coloured, albuminous; temperature in rectum 100°, in axilla 97°. Continue eggs, brandy, and a stimulant draught to be given in small doses frequently. Diet: sago, conjee, and milk.

11th. — Passed a restless night; anasarca increasing; serous effusion in pleural and abdominal cavities. Pulse filiform; temperature in axilla 97°, in rectum 100°. Intellect clear. Gradually sank, and died at 3.30 P.M.

Autopsy, fifteen hours after death (assisted by Dr. Simpson, civil surgeon, Poona).—Head not opened.—Chest: The walls of the thorax œdematous. On opening the cavity of the chest the lungs were found small, somewhat retracted, healthy, with but slight congestion of inferior margin; about half a pint of fluid serum, with fat-globules swimming over it, existed on both sides; old adhesions were found existing between the lungs and the walls of the chest, some so very strong and resistant that they had to be divided with the knife; weight of lungs, two pounds and a half. The pericardium was adhering to the heart intimately, and in some parts was dense, hard, almost cartilaginous. The muscles of the heart had in many places entirely disappeared through fatty degeneration; they were pale everywhere, and presented the appearance of a pathological specimen that had remained for years immersed in spirit. Valve dotted with fat. Weight of heart, with pericardium, seven ounces.—Abdomen: The stomach and bowels were much inflated; the peritoneum was slightly injected in places, more so along the greater curve of the stomach; no effused lymph, but a certain quantity of serous transparent fluid escaped when the abdominal walls were open. The liver was almost entirely hidden under the false rib; the left lobe was small and flat, the right was flattened, presenting a thin border extending irregularly below the false ribs for about an inch. The liver was of bright-yellow colour, hard, and leaving a fatty layer on the knife; it seemed *ex sangue;* the external covering was in places thickened, and here and there it had contracted intimate adhesions with the diaphragm. Through the cellular and intervening tissues the puncture could not be traced; on the liver itself a small punctured cicatrix was found, corresponding in a perpendicular line with the external cicatrix, but several inches higher up, and just on the margin of the false rib. Neither here nor anywhere else could any traces of recent inflammation be found. Weight of liver three pounds and a half. The gall-bladder was elongated, hard, and contained about an ounce of very thick, dark bile, looking very much like pitch in colour and consistency. The kidneys weighed four ounces; there existed some slight injection of the pyramids; the cortical substance was healthy, except towards the inferior extremity, where hard patches were found surrounded by a fatty unvascular tissue. The muscles of the abdomen were pale, flabby, streaked with fat, and in some places the muscular tissue itself had undergone fatty degeneration.

Remarks.—The case is interesting, as showing how very harmless puncture of the liver really is, and it exhibits in a remarkable manner the influence of local bleeding on a liver gorged with blood. Although the symptoms indicated in some degree the existence of an abscess, none was found, but, from the presence of pus-globules in the blood withdrawn, it is evident that before long such a result would have occurred. *The liver was punctured three and a half fingers' breadth—say two inches—below the false ribs,* and at the post-mortem examination the liver was found so much reduced in size that its flattened edge hardly extended half an inch below the ribs; *the cicatrix of the puncture was seen hidden by the walls of the thorax,* whilst the symptoms observed during life, as well as what the autopsy revealed, proves clearly how rapidly the congested and inflamed liver recovered its normal condition after the puncture was made. The amount of blood abstracted was small—not more than an ounce. It seems as if the withdrawal of this small quantity of blood were sufficient to assist the overloaded hepatic vessels, and gave the required impetus to the languid circulation of that organ. Death was due to anasarca, the result of extensive fatty degeneration of the heart and muscular tissues generally, and it was in no respect hastened by the operation, which may have had, even in this fatal case, rather a beneficial effect than otherwise.

REPORT OF A SUCCESSFUL CASE OF THE

APPLICATION OF ESMARCH'S BLOODLESS SYSTEM TO THE TREATMENT OF ANEURISM.

BY STAFF-SURGEON WALTER REID, M.D., R.N.,
ROYAL NAVAL HOSPITAL, PLYMOUTH.

(*Communicated by the* DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY.)

J. F——, aged thirty-seven, chief boatswain's mate, was received from H.M.S. *Arab* on August 10th, with a left popliteal aneurism, of the sacculated variety. The tumour had attained a considerable size with strong pulsation. It was caused by a strain incurred three weeks previously while lifting sails.

Strict rest, with farinaceous diet, were first enjoined, and on the 19th treatment by genuflexion was commenced. On the 23rd this was abandoned, owing to the severe pain and œdema of the leg which it caused. On the 26th two Carte's compressors were applied, one to the main trunk at the pelvic brim, the other at the apex of Scarpa's space. After four hours' continuous compression, pulsation in the aneurism ceased, but shortly afterwards returned. Numerous attempts have since been made by various forms of compression to arrive at a cure, but without success. Pulsation continued, and the swelling did not sensibly diminish. The aneurism was apparently being supplied to a certain extent by the collateral circulation.

On the 10th of September, having performed a protracted operation for necrosis of the femur in another patient, during which the limb was kept bloodless for an hour and ten minutes without producing any subsequent injury or inconvenience to the circulation, it occurred to me that Esmarch's system was well worthy of trial in the case of aneurism, as more likely than any other plan, to produce complete stagnation of the contents of the sac, and so lead to their coagulation.

Accordingly I removed the compressing apparatus which was in use that day, and left the patient alone till the morrow, when, at 10.20 A.M., I bandaged the limb with the elastic roller, from the toes upwards to the junction of the middle with the lower third of the thigh. It was applied lightly over the aneurism, so as not to compress it. The elastic tubing was then wound round the limb over the highest turn of the bandage, which was now removed. The entire circulation below the tubing was found to be arrested. The limb had assumed a death-like pallor, and gradually lost temperature. The aneurism was of its usual size, and pulseless.

After fifty minutes, the patient complaining of severe pain above the seat of constriction, a Carte's compressor was adjusted to the main trunk at the pelvic brim, and the elastic tubing removed. On raising this compressor a few minutes afterwards, I could detect no pulsation in the aneurism; several small vessels were beating strongly round the joint, and the collateral circulation appeared to be established. The compressor was readjusted and left in charge of the patient, who had already been well accustomed to its use. He was ordered to apply the compression lightly and in an intermittent manner, so as not to distress himself. He continued doing this more or less until the evening of the following day, when the apparatus was removed. The tumour had been frequently examined by myself and others, and was always found to be pulseless and sensibly diminishing in bulk.

Sept. 15th.—There has been no pulsation, and the swelling is still getting smaller, so that I regard the aneurism as practically cured. There has been no constitutional disturbance, and the only complaint which I have been able to extract from the patient is a feeling of numbness in the three outer toes, with occasional darting pains up the outer side of the leg. The femoral artery can be felt beating as far as the seat of constriction (where the tubing had been placed), but not beyond. There are several small arteries pulsating round the joint, one particularly to the inner side of the patella. The numbness and pains complained of are to-day nearly gone.

Remarks.—The simplicity and apparent safety of this mode of treating aneurisms, as well as the rapid success which followed its application in the case which I have recorded, will doubtless commend it to many as at least worthy of trial.

I have been particular in giving the details of treatment, as any one of them may have been essential to success. The explanation appears to be—the coagulation of blood in the sac, consequent upon its complete stagnation. The aneurism itself probably remained full, but the entire circulation in the parts was arrested, and it is possible that the loss of temperature and that particular condition of the tissues closely allied to death, may have had some effect in the formation of the coagulum. How long it may be necessary to keep the limb bloodless in order to produce this result is a question which must be decided by future practice.

My reason for compressing the main trunk for some time afterwards was that the force of the blood-current might have broken down and washed away the newly-formed clot before it had time to become tough and solid, and the sac to contract over it.

The experience of surgeons will no doubt suggest improvements in this plan of treating this disease. It may be even necessary in certain cases to inject fluids into the sac to promote coagulation while the limb is kept bloodless. This, however, is a mere suggestion, and I must content myself for the present with indicating and illustrating by a practical example what, so far as I know, is a new treatment of aneurism, as well as an instance of the great service which Esmarch's system seems destined to render to surgery.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

MELANOTIC SARCOMA OF FEMORAL GLANDS, SECONDARY TO TUMOUR OVER THE HEEL; SARCOMATA IN SPLEEN AND ILIAC GLANDS.

(Under the care of Mr. DE MORGAN.)

THE most remarkable circumstance in the following case was the presence of all the symptoms of brain tumour—headache, vomiting, and double neuro-retinitis, exceedingly well marked and persisting to the end. In no case could the presence of a brain tumour have been diagnosed with more confidence than in this one, and yet at the autopsy no sign whatever of any coarse brain disease was found.

The clinical notes are from the pen of Dr. Lyell, surgical registrar.

E. W——, aged thirty-six, admitted on Jan. 30th, 1875, with a swelling in the right groin, preventing locomotion. Her statement was to the effect that, for eighteen months before admission, she had noticed the steady growth of an almost painless tumour below the right groin, which gave her a minimum of discomfort, till, by pressure on the veins of the limb, causing œdema, and by its size, it prevented her getting about; that, during Easter of 1874, at a metropolitan hospital, a "lump," like a black wart, of the size of a half-crown, was excised from the calf of the right leg; and that this existed some months before that in the groin, although the latter was evident at the date of the operation. Her former health had been fairly good, and there was no hereditary history of any import.

Visual examination reveals a large protuberant mass situated immediately below the fold of the right groin (which is deepened in contrast), occupying the entire anterior aspect of the upper fourth of the right thigh, extending inwards to the edge of the adductors and outwards to the anterior superior iliac spine. It is hard, nodulated, and of equal consistence. She can bear free manipulation of the tumour, but complains of shooting pains in the tumour itself and down the same leg. The tumour is freely movable on the tissues beneath, and the skin surmounting it is natural in appearance, non-adherent, and slightly œdematous. The rest of the limb is markedly œdematous. Above Poupart's ligament, and apparently detached from the mass below, dipping deeply into the brim of the pelvis, is a similar hard enlargement, the upper border of which is circumscribed and rounded, whilst the lower and deeper cannot be localised. Just below the swelling of the right calf is the cicatrix of the operation, and below its site a pea like melanotic cutaneous nodule.

Feb. 16th.—Since admission, the prevailing and most prominent symptoms have been obstinate vomiting and headache, defying the remedies applied. With the exception of occasional remissions of varying intervals, she has been persistently sick after her food. The remission may

last for twenty-four to forty-eight hours. Describes the headache as a "dizziness" and "numbness" creeping up the right side of the head. Tumour remains unchanged. Pulse very feeble and quick. Is evidently losing flesh, and facial expression is more pinched and careworn.

26th.—Constant headache, generally aching throughout, and very sick; her food creates nausea, but occasionally the food is regurgitated without nausea; aching and heaviness in the eyes; reading causes pain and a mist before them; pupils dilated, sluggish, equal. Pulse 78, feeble; bowels rather constipated; urine 1022, acid, no albumen.—Examination of fundus oculi: Well-marked neuro-retinitis in and around both optic discs, which are obscured and veiled by exudation; veins swollen and tortuous, and the vessels near the discs obscured and lost to view in parts of their course; a few recent hæmorrhages in retina.

March 12th.—Passed a bad night; a good deal of sickness in the night; complains of shooting pain along the spinal region; thirst; pulse 90, weak, full and variable; bowels confined; temperature 98°; pupils dilated; mouth drawn to left; left lid closes more firmly than the right; when lids are compressed, the wrinkles on the left side are more marked, but right brow is unfurrowed; pale and anxious.

15th.—Paralysis more marked; complains of pain in head running down the back; pulse 88 and irregular; has singing in the head. Morphia injection twice a day.

19th.—Morphia relieves pain, but not vomiting; her chief complaint is now the pain in back, of an aching and shooting nature, and almost unbearable; the facial palsy, if anything, more pronounced; no palsy elsewhere; neuro-retinitis remains *in statu quo*; has obstinate constipation; bowels opened by croton oil injection.

29th.—Slight internal strabismus of right eye; no vomiting for four days.

April 2nd.—Facial palsy is less marked; can close the right eye firmly, can close the right lid firmly, and the right angle of the mouth moves as freely as the left; the right globe is slightly turned in, and looks a little prominent; for last fortnight has had numbness in both hands, stretching up the arms; this also is less marked.

5th.—Facial palsy has disappeared; hands still benumbed; loss of command over bladder; catheter used; constipation continues.

10th.—Has some command over bladder.

22nd.—Emaciating considerably; very little nourishment retained; tumour in thigh much increased, elastic and bossy to the touch; skin stretched, marbled with dilated veins, and of a purplish colour; gives her no pain.

May 6th.—Continues to lose ground; still no command over bladder; vomiting continues, and headache not ameliorated; very rapid increase of growth.

21st.—Hæmorrhage from tumour stopped by styptics.

23rd.—Again hæmorrhage, about four ounces. The measurements of the tumour are now twelve inches and a half by thirteen inches and a half. Perchloride of iron and ice to tumour.

28th.—Gradually sank after a fresh hæmorrhage.

Abstract of post-mortem examination made thirty-one hours after death. (By Dr. COUPLAND.)—The upper part of right thigh, from Poupart's ligament to about junction of upper and middle thirds, is occupied by a large dark-coloured tumour, which is in great part broken down to a softened pulp, the removal of which leaves a large excavation with ragged sloughing walls. The depth of the tumour does not extend beyond the fascia lata of the thigh. At the back of the lower part of the leg, about two inches above os calcis, is a linear cicatrix, close to which is seated in the skin a small, low, black nodule, of the size of a pea, and of the consistence of horn. A vertical section shows the nodule to arise from the papillary layer of the corium. Heart and lungs fairly healthy. Liver soft and flabby. Spleen large, pale, soft, almost diffluent; the lower extremity of the organ occupied by two white rounded masses; one of them softened in the centre into a small cavity containing blood; no melanosis. In the omentum were several nodules the size of haricot beans, of soft consistency, and yielding an abundant milky juice. In the right iliac fossa was a tumour the size of two fists, surrounded by large masses or altered glands. The tumour apparently arose from the inguinal and iliac glands. It was of whitish-grey colour, and excessively soft, while many of the enlarged glands, which showed similar appearances, were riddled with little cavities due to post-mortem emphysema. Kidneys soft and flabby. Brain was carefully examined, and no tumour could be found of any sort.

GUY'S HOSPITAL.

CANCER OF RECTUM; COLOTOMY; DEATH NINE MONTHS SUBSEQUENTLY.

(Under the care of Mr. BRYANT.)

THE following notes were taken by Mr. W. Brown.

G. S——, a paper packer, aged fifty-six, was admitted into Job ward on April 14th, 1873. He had in October, 1872, been admitted a patient, having a large indurated and ear-shaped growth, about two inches long, one inch deep, and about half an inch thick, on the left side of his anus, almost closing the anal orifice; there was also a large fistulous opening at the base of growth communicating with the bowel. Chloroform was given, and on Oct. 25th the growth was removed by galvanic cautery. No bleeding occurred, and the patient left the hospital on Nov. 13th, as nothing more just then was done.

After leaving he remained at home for a week, and then went to work. His motions gradually became smaller, and at last he was obliged to take aperient medicine. He then began to get weak, and was unable to sit down.

When admitted it was with difficulty that the finger could be introduced, so blocked up was the rectum with cancer substance, which bled as soon as it was touched. It was then decided to perform colotomy.

April 16th.—The man was put under the influence of chloroform, and a slightly oblique incision was made between the last rib and the crest of the ilium from above, and in front downwards and backwards. Some difficulty was experienced in getting the bowel up into the wound. The wound was slightly enlarged forwards, then the gut was secured, a needle was passed through the skin and gut in two places, and the bowel cut between them, and the sutures pulled out of incision, divided and ligatured on each side. Another suture was then put in the bowel and skin at the posterior part, and the incision brought together by superficial stitches. The finger was passed down the bowel, and no carcinoma was found as far as the finger could reach. He complained of great pain when he coughed, but he felt better the following morning. Temperature 102·1°; pulse 102; respiration 25.

17th.—The pain still continued, and his abdomen was distended and tympanitic.

18th.—He was a little better, and the following day passed a small motion through the artificial anus.

21st.—The artificial anus did not look quite so well; there was more discharge, but not more pain. Temperature 98·5°.

22nd.—The ligatures came away to-day, the discharge still being great. Temperature normal.

28th.—The bowels had been opened, good-shaped solid motions being passed. He complained of pain in the rectum, but opium lotion was applied, and he found great relief.

He was able to get up a little on May 12th, but felt very much fatigued, and the following morning there was a good deal of hæmorrhage from the rectum, which was subsequently plugged, but the patient looked very blanched and felt weak.

May 19th.—The plug was removed, but bleeding recommenced, so that wool saturated with perchloride of iron was again applied.

23rd.—There was a large ulcerated surface round anus, extending forward to perineum and backwards to coccyx.

June 26th.—The patient had since last report felt very weak and low. His appetite was very small, and he slept but lightly.

July 17th.—The man continued very weak. He was passing urine in great quantities through the wound in his anus.

22nd.—Yellow clay was applied to the sore in the anus. He passed his fæces generally twice a day. The clay was continued till the 31st, when it was removed, as it appeared to cause irritation.

August 11th.—The man stated that he was always very wet. It was not known if any urine came by the bowel. He passed some by the urethra, clear in colour.

September 2nd.—He passed urine both by the rectum and urethra, and by the former blood, when he attempted to sit up.

13th.—The cancer was increasing fast. It occupied all the space between the nates. Pulse 90; temperature 97·8°; respiration 24.

October 6th.—He felt no weaker, but when he got up he could hardly stand.

9th.—The cancer had reached the bladder, so that all his water, except about a pint in the day which passes through the penis, is voided per rectum, through the cancerous growth. On passing the finger into the artificial anus, some thickening was felt outside the bowel.

November 3rd.—There was some diarrhœa in the night, which lowered him very much, making the artificial anus tender, and this was treated with zinc ointment. He took compound ipecacuanha powder, and the diarrhœa lessened.

December 3rd.—He complained of his tongue and throat feeling sore.

9th.—He did not feel so well, his bowels being very relaxed; his throat and tongue troubled him also. He continued in this state till February 16th, when he seemed very much weaker and emaciated, and died on the 20th.

The post-mortem examination showed that the lungs were very shrunken and dry; much emphysema of the anterior parts, especially the extreme edges towards the lower parts. The tubes all contained pus, which welled out of them on the cut surfaces of the lung. The tubes also appeared to be distinctly dilated. The peritoneum was healthy; the artificial anus in the left loin was quite firm and healthy. No excessive adhesions or marks of inflammatory action about the serous covering of the bowel in this position; the bowel here was quite healthy. Round the anus there protruded a large lobulated mass of the growth. When the parts had been removed, it was found that this occupied the whole of the lowest six inches of the rectum. It adhered to the adjacent parts, especially posteriorly, so that when it was cut away from the rectum a considerable part of the wall of the bowel was left behind. It formed a most irregular surface, covered with large irregular masses of the growth, which was white on section, but not cerebriform. There was a little pus about the growth near the rami of the pubis, but no abscess of any size. The liver weighed 52 oz. The right lobe was rather coarse and flattened, with some congestion of the hepatic radicles, and perhaps some excess of fat; the left lobe was remarkably atrophied, flaccid, and, on section, dry, and its lobules much smaller than those of the right lobe. This state seemed to extend right up to the falciform ligament. The kidney weighed 8½ oz., was pale, but not apparently diseased. The ureters were healthy, and not involved in the growth. The bladder was quite healthy, its mucous membrane pale; it had no communication with the rectum, nor had the urethra; it contained a thickish bright-yellow fluid, looking exactly like fæcal matter from the small intestine, but without odour; it also gave no reaction of bile-pigment with nitric acid. Examined microscopically, it turned out to be urine full of crystals of uric acid. It must be supposed that the urine believed to have been passed from the rectum was really discharge from the surface of the growth within the bowel. Microscopically, the growth in the rectum was found to be true cancer—large epithelial cells, with great oval nuclei, and bright nucleoli.

BRISTOL ROYAL INFIRMARY.

NEARLY FATAL CASE OF POISONING BY A KNOWN DOSE OF CARBOLIC ACID; VENOUS INJECTION OF AMMONIA; RECOVERY.

FOR the notes of the following interesting case we are indebted to J. E. Shaw, M.B., house-surgeon, under whose care the patient really was.

Charlotte C——, aged thirty-seven, a debilitated anæmic woman, confined six weeks previously, was admitted on the 5th June, 1875, for abscess superficial to the right hip-joint, which came on a fortnight after parturition.

It being intended to open the abscess under an antiseptic veil, a solution of carbolic acid in linseed oil (1 to 10) was ordered for that purpose; and of this mixture, on June 7th, the woman, on her own responsibility and unknown to the nurse in charge of the ward, took a measured fluid ounce, not having partaken of any solid food for several hours. Twelve minutes or more elapsed before the woman's condition arrested the attention of the nurse, who, finding upon inquiry what had occurred, hastily summoned the house-surgeon to the patient. When first seen the woman was sufficiently conscious to reply when spoken to sharply; the skin was moist, the face dusky, the pulse weak, and the pupils slightly dilated. The rapidity with which the toxic effects of the carbolic acid were being developed clearly showing that it was useless to temporise with emetics, the stomach-pump was immediately obtained and applied, the stomach being continuously washed out with tepid water for about twenty minutes, until the ejected matter was perfectly free from oily particles floating on the surface and possessed odour neither of oil nor acid. During this time the state of the patient was becoming every moment more alarming. Unconsciousness was rapidly becoming absolute, the dusky tint of the face deepened, the moisture of the skin increased, and the pupils more dilated, while the pulse was rapid, irregular, and scarcely perceptible; the breathing remained regular, although the relaxation of the soft palate rendered it noisy.

In about three-quarters of an hour from the time when first seen, the condition she presented was most singular. Coma was complete, the face perfectly livid, the pupils dilated, the skin secreting perspiration in the most extraordinarily profuse manner, the surface of the body warm, as also were the extremities, with the exception of the hands, the pulse at the wrist imperceptible, and the muscles of the soft palate and tongue so entirely relaxed that it was necessary to keep the latter organ extended with catch-forceps to prevent it from falling back upon the glottis; yet with these precautions the breathing continued regular, though slow, and the reflex sensibility of the conjunctiva was never altogether abolished.

As dissolution now seemed imminent, it was determined to inject ammonia into the veins, and with all possible despatch. Two drops of the strong solution of ammonia diluted with water were gradually injected into a vein of the forearm. In a few seconds the radial pulse became perceptible, and there was slight general improvement, which was, however, but transient, for in a quarter of an hour it was necessary to repeat the injection the same as before, and again with marked benefit. After waiting another fifteen minutes, the injection of ammonia was again administered, after which the pulse remained perceptible, and the patient's condition improved in every respect. Within another half-hour consciousness had returned, and in less than two hours from the time when first seen, she had sufficiently recovered to be left in charge of two students, who had rendered most valuable assistance throughout.

On recovery she was completely ignorant of what had occurred, and did not know that any mistake had been made. She complained of no pain except in the tongue, and experienced no relapse, but remained in partial prostration for some days, and suffered from an attack of gastric catarrh, which subsided under appropriate treatment.

The urine was not examined.

The case is one of interest, inasmuch as the dose taken (as nearly as possible fifty grains) was accurately known, and the symptoms throughout closely watched. This quantity of carbolic acid would appear to be about the limit which can be taken without a fatal result following; indeed, had the acid been in watery solution, and therefore capable of more rapid absorption, or had the woman been left without treatment, recovery would in all probability not have taken place. The experience of this case demonstrates, moreover, the value of injection of ammonia into the circulation in such cases, where we have no direct antidote, and shows that if life can be maintained for about a couple of hours, one may hope to have obviated the tendency to death.

MR. H. A. CÆSAR, public vaccinator, Western district, Mile-end, has received a grant of £36 19s. from the Local Government Board for efficient vaccination.

THE MEDICAL HISTORY OF THE DUTCH WAR AGAINST ATCHEEN IN 1873.*

IN 1870 Holland exchanged with England her West Coast possessions for the North-West point of the island of Sumatra-Atcheen. Both powers were soon involved in war by their new dependencies, the English with the Ashantis, and the Dutch against the Atchinese.

On March 22nd, 1873, the Dutch expedition left Batavia, and sailed into the Atcheen Roads on April 5th. It disembarked on the 8th, and found itself, after several severe engagements, before the town of Atcheen on the 14th; but, being unsuccessful in its efforts to reduce the outlying Craton Fort, was compelled to return to the Coast, and reembarked on April 28th. Of the sanitary arrangements, surgical performances, and medical occurrences of this "three weeks' campaign," an account follows.

The projected strength of the expedition was:—*Military:* Three European battalions (600 each), 1800; Barriesans (native soldiers), 800; cavalry and artillery, 50; convict labourers, 1000; total, 3650.—*Medical:* Medical officers, 12; apothecaries, 2; army hospital corps, 100.—*Material:* Medicine chests, 8; field bandage boxes, 8; stretchers, 12. Accompanied by soldiers' wives to the number of 8 per company, the total reached 5000. Estimating at the rate of 20 per cent., arrangements were made for 1000 sick, and the sailing ship *Kosmopoliat* was fitted out as a hospital-ship. The materials were stored as far as possible so as to form a succession of ambulances, in order that they might be served out more quickly as such on arrival. Besides the regulation stretchers, a number were prepared after the fashion of the Chinese tandus (dandies); each consisted of a piece of sailcloth 6 ft. 6 in. long, and nearly square, attached to a thin stick at the head and foot, and slung from a thick bamboo about 15 ft. in length by strings from either end, which were prevented from slipping towards the centre. At each extremity of the main pole was hung a joint of hollow bamboo as a water-bottle, and a mat 4 ft. 6 in. long was provided as a cover against sun and rain. To support the dandy while the bearers rested, sticks, hollowed at one end, and shod with spikes at the other, were furnished.

To fit the *Kosmopoliat* for hospital purposes, the following alterations were made:—Port holes were formed, large openings were cut in the deck for the introduction of windsails, and existing partitions between decks were removed, only such divisions being allowed as were required for definite purposes; the middle plank was taken out of the roof of the middle deck and trellis-work substituted. A surgery and operation-room were erected on deck. Latrines for the natives were built overboard, those already existing on the deck sufficed for the Europeans, and close stools were carried for the sick. Iron bedsteads were clamped to the floor, and were placed at such distances that a close stool could be introduced between them; beds and seats were also secured on the deck.

A code of instructions was drawn up by the surgeon-in-chief for the guidance of those under him, in which all due importance is given to the necessity for hygienic care; the disinfection and ventilation of rooms used for hospital purposes are insisted on, with a warning against overcrowding, and advice that the men's stretchers should, whenever possible, be raised one foot above the ground, unless where the house is built on piles. A caution is added against placing hospital huts to leeward of a swamp. All slaughter-house offal is directed to be thrown into running water below the encampments, or to be buried. The greatest stress is laid upon attention to the drinking-water, the examination of which is never to be omitted, and where percolation through the regulation filter-stones is not deemed sufficient, a layer of powdered charcoal is to be added, and the water, if especially cloudy, to be previously treated with solution of sesquichloride of iron and soda. Carbolic acid is to be invariably mixed with the water for washing wounds, and this is to be applied with charpie only, as sponges are considered dangerous. Charpie once used to be buried or burned.

* Epitomised from the account by W. Roth, Generalarzt des 12 Armee Corps.

On the subject of operations the following opinion is offered:—According to the experience of the last war, conservative treatment in wounds and fractures of the upper extremity affords every prospect of success; so are primary amputations and disarticulations only in the most pressing cases to be undertaken. This rule holds good also for the lower extremity, since removal of it above the knee, whether primary or secondary, for the most part results in death. The application of permanent bandages should be made as early as possible, and will be an indispensable preparation for later resection. Each medical officer is required to send in a medico-sanitary report of his duties during the campaign, and by this he will be in a great measure judged.

The distribution of medical officers for the voyage from Batavia to Atcheen was as nearly as possible that which would be the allotment on landing. Two medical officers and two apothecaries went in the hospital-ship, the remainder were apportioned to different corps. To each medical officer were assigned two non-commissioned officers and eight men of the Army Hospital Corps, one medicine box, one bandage case, eight "tandus" complete, and a water-flask.

On March 22nd the flotilla left Batavia for Penang, which was 250 miles distant, signals having been arranged so that any case of infectious disease could be at once reported and removed to the hospital-ship. None such, however, occurred, notwithstanding the state of overcrowding which existed.

A sanitary inspection of the fleet was made on arrival at Penang, and showed the condition of the troops to be remarkably healthy; only fifteen sick were transferred to the hospital-ship. Yet it was regarded by the surgeon-in-chief as fortunate that little delay was made here, since at evening with the land-wind an intense swamp-air was carried over the harbour, the influence of which made itself felt on many of the ships during the subsequent voyage in the form of fever with gastric derangement.

On the morning of the 2nd of April the fleet left Penang, and dropped anchor in the harbour of Atcheen at midday on the 5th. Here all sick were at once removed to the hospital-ship, and numbered sixty-two, of whom thirteen were fever cases and three bowel complaints; of these, one fever case and one bowel case subsequently died.

That throughout a voyage of fourteen days' duration in the tropics, notwithstanding an almost reckless condition of overcrowding, only seventy-seven cases of illness should have occurred out of a strength of 4019, exclusive of women and servants, seems a most undeserved piece of good fortune, and was attributed by the surgeon-in-chief "to the good quality of the drinking-water obtained from Batavia *above all things*," and, secondarily, to the fair weather experienced.

The actual composition of the expedition was—officers, 170; Europeans, 1064; natives, 2185; convicts, 600. These were embarked at the rate of 700 per steamer, and, while in the English Abyssinian expedition transport was provided at the rate of 3½ tons per head (2·7 tons being the average laid down in Dr. Parkes's work on Hygiene), the Dutch expedition estimated for only 1¼ tons to each individual. Again, whereas in the former every European soldier was allotted a superficial area of 10½ square feet, and every native 9 square feet, yet in the latter the superficial area did not amount in all to 6 square feet a man. Against such a state of things the strongest remonstrances were entered by the sanitary authorities, but remained unheeded, so that, emboldened by this escape, another much stronger force, which left Batavia eight months later, were still more closely penned, but with sadly fatal results.

On arrival at Atcheen one of the ships was told off for the reception of slight cases of illness, and 61 beds were thus vacated in the hospital-ship, which contained but 100 altogether.

On the 6th, the Commander-in-Chief, Major-General Köhler, made a reconnaisance, in which 1 man was killed, and 3 wounded.

On the 7th, medical dispositions were made:—To each battalion were assigned two surgeons, who also provided for the attached cavalry, artillery, and convict labourers. At the disposal of each surgeon were ten men of the Army Hospital Corps, and twenty labourers, for the purpose of forming an ambulance. Each battalion had thus two ambulances. The remaining two surgeons and one apothe-

cary were left on board the hospital-ship, and the second apothecary was detailed to act as analyst to test the various wells for poison and purity.

On the 8th the disembarkation was completed, with the exception of some artillery and cavalry; but, notwithstanding a galling fire from the landing troops, covered by a cannonade from the fleet, the Atchinese withstood their assailants breast to breast, crossing sabres with bayonets, so that in the capture of the first fort the Dutch lost 15 killed and 58 wounded.

On the 9th the second fort was taken without resistance after a breach had been made by the guns of the fleet.

On the 10th, an expeditionary column, under the commander-in-chief, was organised for an advance on the town of Atcheen, between three and four miles inland. Those remaining at the sea-shore transferred their camp into one of the forts, in the neighbourhood of which good drinking-water, with scarcely a trace of organic matter, and capable of being used without purification, was found. The excellent quality of this water, discovered on a little strip of land between the sea in front and a large swamp behind, was a subject of great surprise, and could only be explained by supposing that the drainage of the distant hills filtered thither through a stratum of sand beneath the lagune.

The troops of the advancing column had to cross a bridge under an Indian forenoon heat, and attack a mosque standing in front of the Craton fort, which defended Atcheen. The assault was unsuccessful, and resulted in so many wounded that the four surgeons who had accompanied the troops in the engagement were insufficient, so that of the two, the senior medical officer and a surgeon, left in the rear to establish a bandage-place not under fire, the latter had to go forward, leaving only Dr. Theunissen to make the necessary arrangements. He, having discovered a dry, airy house by a small churchyard, and finding good water within easy distance, laid down fresh rice-straw, and prepared as far as possible for the reception of the wounded.

On this and the following day 71 wounded were passed on from this first dressing-place to the base of operations on the coast, and the hospital-ship being incapable of accommodating so many, only the badly wounded were sent on board, while the remainder were treated in two field-hospitals erected on the shore out of bamboos, matting, blankets, and sailcloth. In the meantime, to make room, 39 of the previous sick and wounded were evacuated by steamer to Padang, a Dutch settlement 120 miles lower down on the coast of this island of Sumatra.

On the 12th another reconnaisance was made against the Craton, which resulted in a bloody but unsuccessful fight, in which 5 were killed and 49 wounded. The improvised dressing-place was evacuated as far as possible, all transportable wounded being sent to the field-hospitals on the coast.

On the 13th there was a slight skirmish, in which 1 man was killed and 12 wounded.

On the 14th an unsuccessful attack was again made against the Craton, but the mosque was taken after two assaults. On the capture of the mosque, orders were given for the advance of the reserves and ambulances from the bandage-place by the churchyard, since the means of carrying the wounded thither were becoming less and less, owing to the desertion of the Coolies from fear. By energetic measures the Coolies were again collected, and the wounded were carried to the mosque, where, under cover from fire, they were laid in the open, shaded by palm-leaves from the sun. On this day the commander-in-chief, Major-General Köhler, was killed by a ball, which passed through the left arm and penetrated the chest. Death was instantaneous. The casualties amounted to 9 killed and 107 wounded; of the latter, as many as possible were carried to the sea-shore ambulance.

To convey an idea of the determined bravery with which the Atchinese fought on this occasion, the following description is given:—"By our advance the excitement of the Atchinese was so far heightened that they no longer avoided an engagement in the open, but appeared in dense masses, each with a firelock, a lance, and two sabres. They ran towards us with wild war cries, fired, threw down their pieces, then hurled their spears, and rushed forward with brandishing sabres. The quick fire of the Beaumont rifle occasioned frightful bloodshed among them; the number of victims was countless. When the enemy decided on abandoning the field the ground was so heaped with slain that no empty place could be discovered."

On the 15th of April the 12th Battalion made a reconnaisance, and lost 1 officer and 4 men killed, and 1 officer and 15 men wounded.

On the 16th the attack on the Craton was renewed, but again without success, and with this failure terminated the offensive operations of the expedition. Four surgeons were in action with the troops, and one with the senior medical officer at the bandage-place in the mosque. The loss amounted to 11 killed and 117 wounded. The number of stretchers was insufficient, and others had to be extemporised out of bamboos and covers: 96 wounded were sent back to the sea-shore.

Out of a full strength of 3419 fighting men, the total killed and wounded had now reached 423—a consideration which, combined with the unfavourable state of the weather, made the new commander-in-chief, Van Daalen, hesitate about undertaking further operations, lest he should be ultimately compelled to precipitate the re-embarkation, and leave behind some of his material and the wounded.

On the 17th, the retreat to the shore was carried out in the best order, each ambulance being present with its brigade. The great number of wounded already on board the hospital-ship and in the ambulances made an evacuation indispensable. 89 wounded were accordingly sent by steamer to Padang. Room was thus gained in the hospital-ship, and the most severely injured were brought thither from the shore ambulance, so that the latter could receive fresh sick from the returning troops.

On the arrival of the field column, the little camp required the greatest hygienic care. New wells were dug, and every precaution taken. Of the filter-stones served out little use was made, as, from being new, the water that first came through was unpleasant. In future they should always be cleansed by percolation before being given out.

On April 26th, 70 sick and wounded were evacuated by steamer to Batavia, and on the same day the ambulance on shore was broken up, the 10 remaining sick being transferred to the hospital-ship.

On the 28th the re-embarkation was completed, the hospital-ship then containing 63 sick.

On May 4th the fleet again cast anchor in the harbour of Singapore, and a medical inspection was made, which disclosed a much larger sick list than on the outward voyage, but mostly consisting of slight forms of fever. Twelve were removed to the hospital-ship.

Setting sail on the day following, the fleet arrived at Batavia on the evening of the 9th May.

The number that were found at the time of disembarkation to be unable to march with their battalions, and who were left for transport with the patients from the hospital-ship amounted to 147, composed of 53 wounded and 94 fever cases. Eight of these suffered also from beri-beri.

(To be concluded.)

THE BRITON MEDICAL AND GENERAL LIFE ASSOCIATION.

AN extraordinary general meeting of the share and policy holders in this company was held on Tuesday at 429, Strand, Mr. Francis Webb in the chair, for the purpose of receiving the directors' special report and valuation of the position of the Association since 31st December last, and to determine the course to be adopted on the directors' recommendation that a "new series" of members should be established in the form of a new company. The directors' report stated that the valuation to December last, which had been conducted on the same principles as those adopted in the valuation of the affairs of the Association to the end of the year 1872, showed a balance on the valuation of £206,803, making, with £35,420 paid up capital, a balance on the account of £241,503. After considering everything in connexion with the Company's affairs, they had determined to recommend the establishment of a new series of members, as a new company, with separate funds and special capital on which all new policies on the profit scale should be issued,

and that the entire existing funds and capital should be specially reserved for the benefit of the present policy holders. They also recommend as a part of the scheme that the expenses of the old company should be comparatively small—for the first two years not more than 8 per cent. on the premiums, for the next five years not more than 6 per cent., and afterwards not more than 5 per cent., including commission to agents. Out of the above-mentioned £241,503, the directors had caused to be reserved £164,424, being the present value of such rate of expenditure. On this scheme they had taken the opinion of four eminent actuaries, Messrs. Bunyon, Adler, Bailey, and Pearson, and on this opinion they felt justified in recommending the adoption of the scheme to the policy and share holders. By this scheme the expenses of the old association would be limited to the smallest possible amount, whilst the new association, forming in itself a large body of recently selected lives, got together at comparatively small expenditure, would have unusual prospects of success. The directors also proposed to strengthen the executive, some of the present directors to devote their attention specially to the management of the funds and the transactions of the old series, and a larger board to be formed for the new series on which the interests of the policy-holders would be fully represented. The special actuarial opinion of Messrs. Bunyon, Adler, Bailey, and Pearson, above referred to, after stating that these gentlemen had examined the accounts and statements for the five years ending 31st December, 1872, deposited with the Board of Trade, and the valuation then made, and that they had tested that valuation, proceeded to say that the accounts for 1873 and 1874, and the results of a valuation to the end of 1874 on the same basis as the former valuation, had also been submitted to them, and they were of opinion therefrom that the events of the last two years had not appreciably affected the Society's financial position, the resulting balance at the end of last year being £206,083 as against £190,688 in 1872. After stating the principle of the new scheme, the opinion of the four actuaries above-named proceeded to say that, "assuming this plan to be carried into effect, the existing business to be preserved, and taking the balance of assets over and above the accrued liabilities to be £659,305, according to the balance-sheet last published, and bearing in mind that the society possesses a large unpaid capital (£142,000) as a further guarantee for the integrity of its assurance contracts, we are of opinion that it will be in a position, with careful and judicious management, to discharge all existing liabilities as they mature. The new company will start with a valuable connexion in complete working order, which has been acquired at an expenditure of much time, labour, and money, and will be free from all existing engagements. Thus circumstanced, and guided by the experience of the past, we think it has good prospects of success." The Chairman detailed at considerable length the advantages of the new scheme, and alluded to the attacks that had been made upon the company by a portion of the press. He, however, insisted that the company was in a sound position. He asked the meeting to pass a resolution authorising the old company to employ the new in the collection of their income from the 31st December, 1875, at the rates stated in the report, including all expenses of offices, clerks, stamps, &c., and that they should relieve the old series from their current business expenses, with the premises and any existing agreements. He then moved, "That the report just read be received and adopted, and circulated." Dr. Richards seconded the motion, which, after having been strongly supported by Mr. Oliver, Dr. Owen (Lord Mayor elect of Dublin), Mr. Chapman (an old shareholder), and Mr. Fox (Dublin), was put to the meeting, and carried unanimously amidst cheers.

THE HUNTERIAN SOCIETY.

THE Council of the Hunterian Society feels that the Society's usefulness would be much increased by the operations being more widely known amongst the members of the profession.

1. The London Institution, Finsbury-circus, in which its meetings are held, now forms the central point on which no less than nine suburban railways converge at only three minutes' walking distance from each.

2. It possesses the most complete accommodation for small as well as very large meetings.

3. Its permanent medical library consists of nearly 4000 volumes, and it has established a circulating one by subscription to Lewis, by which each member can obtain all the latest works on application to the librarian between the hours of 10 A.M. and 4 P.M.

4. It is a Society originally established (fifty-seven years ago) for the purpose of encouraging kindly feeling, friendly discussion, and integrity of purpose amongst its members. These objects it has steadily fulfilled during its course, and has always maintained a sound financial position.

One reason for its being less known than other medical societies is a rule made *in limine* that publication should be avoided lest it should restrict freedom of discussion. Another reason is migration to the West of the men who were at one period of its formation the leading members of the profession. A third reason was difficulty of access to its former place of meeting. This now is changed, and the Council desires to bring the fact as prominently as they legitimately can before the profession.

A CASE OF POISONING BY NEURALINE.

To the Editor of THE LANCET.

SIR,—It may be useful to place on record a case of suicidal poisoning by neuraline, which has just occurred in Marylebone, and in which death appears to have resulted quickly and almost, if not altogether, without a struggle, after swallowing a comparatively large quantity of that extensively advertised preparation of aconite. The deceased, who had previously been in sound health, was a gentleman of good position in Holland, aged thirty-six years, who had lately arrived in this country, and who, in addition to other domestic troubles, had been much overcome by the death of a dearly-loved daughter, which had unexpectedly occurred abroad during the previous week. When the body was first viewed—probably about twelve hours after the poison had been swallowed,—it was found lying in a prone position, inclining towards the left side, with the arms folded and the legs close together and straight. There was extensive and well-marked cadaveric lividity, and the rigor mortis was fully established. On the dressing-table in his room were two small and octagon-shaped bottles, marked "Neuraline," the corks of which had been pushed in, and their fluid contents had apparently been emptied into a tumbler which was found on a chair near the bedside. This tumbler, which smelt strongly of neuraline, had been drained of its contents as soon, probably, as the deceased had undressed and gone to bed. There was a slight smell of neuraline perceptible near the mouth of the deceased, and from a letter, which was found beside the two empty neuraline bottles, it was evident that he had intended to commit suicide.

As no post-mortem examination was allowed by the coroner (Dr. Hardwicke), there was no opportunity of ascertaining the effects of aconite in a concentrated form on the internal organs; nor of verifying previous observations respecting the state of the mucous membrane of the stomach and duodenum in cases of death from this poison. The jury, after some remarks on the absence of a post-mortem examination, returned a verdict of "Death from Suicidal Poisoning by Neuraline whilst in a state of unsound mind."

Neuraline, according to Dr. Harley, is a preparation of tincture of aconite, mixed with chloroform and rose-water; and the death of the Hon. G. R. Vernon, in 1871, was ascribed to the too frequent use of this preparation externally. (*Pharmaceutical Journal*, Jan. 1872, p. 618; cited by Taylor, "Principles and Practice of Medical Jurisprudence," second edition, 1873, vol. i., p. 427.)

I am, Sir, your obedient servant,

WILLIAM SEDGWICK, M.R.C.S.

Park-place, Upper Baker-street, Sept. 22nd, 1875.

*** We think that a post-mortem was necessary in this case. Juries in such cases should refuse to return verdicts unless post-mortem examinations are made.—ED. L.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 25, 1875.

AFTER perusing the description and criticism of a huge Act of Parliament, it is somewhat of a relief, if not of a refreshment, to take up a Report (Blue-book though it be) which forms the fourth of a new series submitted by Mr. SIMON to the Local Government Board. The first of these Reports was comparatively brief, and referred chiefly to the circumstances under which these official records had been for a time in abeyance. The second was occupied almost exclusively with filth diseases and their prevention, and contained valuable reports on certain outbreaks of enteric fever by Drs. BUCHANAN, BLAXALL, and BALLARD, and on excrement nuisances by Mr. NETTEN RADCLIFFE. The third Report was devoted to scientific investigations by Drs. BURDON-SANDERSON, KLEIN, CREIGHTON, and THUDICHUM, made with a view to aid the study of pathology and medicine; and was submitted by Mr. SIMON, in his capacity as Medical Officer to the Privy Council. The fourth Report, now before us, contains a valuable digest, by Dr. SEATON (assistant medical officer to the Board), of the vaccination officers' returns; and includes, in fact, a skilled *résumé* of all that has been done officially in this important subject to the end of January in last year. There is also an official communication by Dr. BUCHANAN on infectious diseases in Birmingham and Aston, and on the hospital accommodation of these places; and another by Dr. BALLARD on the sanitary condition of the Upper Sedgeley sanitary district. The Report comprises, moreover, an abstract of the medical inspections made in 1874, with regard to matters of local sanitary administration. We shall hope to notice these communications *seriatim*; for that relating to vaccination directly and practically concerns a vast number of our profession in all quarters of the kingdom, and the various aspects of the hospital accommodation question are no less important to all officers of health. But we desire at the present time to direct attention to the "manner" rather than the "matter" of this Report. In a brief chapter of ten pages, Mr. SIMON describes, in his superlatively terse but exhaustive style, the special objects of the Report, and then proceeds to look ahead, and to indicate to the President of the Local Government Board the best course to steer over an awkward and tortuous route.

In summarising the non-administrative business of the department performed during the past year, special mention is made of Mr. NETTEN RADCLIFFE'S unsavoury work (discussed at length in Report No. 2), as to which Mr. SIMON expresses his "grateful sense of the service which Mr. RADCLIFFE rendered in devoting himself for many months with indefatigable patience to details which only the hope of real public usefulness could make attractive." The same inspector now notes for the department all information received as to foreign epidemics from the Foreign, India, and Colonial Offices, and is also compiling a paper on the movements of cholera, which will be shortly forthcoming as a supplementary report, being a continuation of that submitted in 1866 to the Privy Council. Levantine plague is briefly adverted to; and special mention, of course, is made of the International Sanitary Conference held in 1874 at Vienna, at which the department was represented by Dr. SEATON, and of the results of which full particulars were given in THE LANCET of August 22nd of last year.

The ordinary administrative work, as above-named, is set forth in the appendices. "With regard to the prevention of diseases other than small-pox, the Board during 1874 communicated through this department with 56 local authorities, representing 17 rural and 39 urban districts." The context shows that there are, at the present time, 1558 areas of separate sanitary jurisdiction in England and Wales—i.e., 39 metropolitan, 930 urban, and 589 rural districts. Mr. SIMON simply puts these two sets of facts in close juxtaposition (as we have done here), and then says (speaking of the 56 inspections),—"The above communications neither enable me to submit to you any adequate materials for discriminating as to the progress of disease-prevention in the districts of England, nor, I apprehend, can have represented an exertion of the Board influence in favour of sanitary progress in more than a small fraction of the cases where such progress is urgently wanted." This last paragraph, taken with the preceding statistical particulars, needs no comment.

The Medical Officer, in detailing evident signs of sanitary progress, notes the fact that loans contracted under the Sanitary Acts averaged between 1858 and 1864 somewhat less than £330,000 annually; that they more than doubled that amount in the six years from 1864 to 1870; that thence to the end of 1872 (twenty-nine months) the annual average exceeded £884,000; and that in the last two years the respective amounts have been nearly a million and nearly a million and a half of money. As many as ten rural districts in 1873 and forty-four in 1874 applied for and obtained urban powers, and "in many individual cases the reports of the local officers of health give every assurance which could be desired that good sanitary work is advancing." But the unfavourable side of the picture, though indicated only by the Quarterly Returns of the Registrar-General, shows that "preventable death in vast quantities goes on unprevented," and is "conclusive as to the insufficiency of sanitary endeavours in a very large proportion of our local jurisdictions." Two influences commonly predominate in needlessly wasting human life in this country, and these are (1) local conditions of filth and nuisances, and (2) reckless disseminations of contagion. Both show the utter neglect of local authorities to fulfil the definite obligations which the Sanitary Acts impose on them, and their failure to use with adequate skill and vigour the resources which are in their option to employ against the evil.

In emphasising the proportionate unimportance of the proceedings taken by the Board through the Medical Department as to these evils (because of the infinitesimally small number of inspections conducted), Mr. SIMON appeals to the functions of statesmanship rather than of medicine and very properly assumes that "among the many administrative purposes for which central government in this

country claims to criticise and influence, and in certain cases control, the action of local authorities, none can be of more national importance than those which relate to the prevention of disease." And (adverting to the statistics above quoted) "how slight, except in regard of small-pox, is the cognisance which the Board hitherto takes, and how far apart are its exertions of skilled influence in regard of those local defaults of disease-prevention which annually cost many thousands of lives."

Mr. SIMON then (assuming that local government should always as far as possible be exempt from central interference) submits that the intervention of the Local Government Board should proceed methodically upon the basis of local death-accounts—i. e., the evidence afforded in such accounts as to the degree in which preventable disease has not been prevented. This intervention might in some cases be attained by correspondence, but (as has been before recorded by the Medical Officer) would be best compassed by skilled inspections on such a scale as practically to represent a central audit of local death-accounts. Such examination of local proceedings as have been hitherto undertaken are made on the basis above suggested. But the quantity of medical inspecting force available to the department for this branch of the service is only about equal to the employment of three inspectors; and this, with 1558 sanitary jurisdictions, and a mortality (excluding small-pox) from preventable causes of at least 120,000 persons annually!

Attention is drawn to the following facts: (1) that the Board are only entitled to receive copies of the reports of their local officers of health a moiety of whose salaries is paid out of the imperial exchequer; (2) that in certain cases local authorities, though provided with admirable officers of health, may, and often do, entirely disregard their advice; (3) that the reports of local officers which come to hand are sometimes so compiled and arranged as to give little or no information to the Central Board. These manifest defects suggest to all familiar with the subject an equally manifest remedy.

Mr. SIMON concludes with a graceful compliment to those local medical officers of health who in many places have filled their posts with credit, and "in a notable number of cases with really eminent ability and success." But this circumstance, as he remarks (having regard to the novel nature of the work), must not obscure the fact that, before such standards can be general in the country, very much work will have to be done and very many difficulties surmounted.

A STRONG argument has been advanced by some members of our profession, whose opinion is entitled to every consideration, in favour of the punishment, in certain cases, of lunatic criminals, and in support—partial, at any rate—of the attitude which our criminal law maintains towards the insane. What that attitude is we need hardly remind our readers. It absolves from punishment those, and only those, who at the time of the commission of their crime were unable to appreciate the wrong character of their action. It includes all others, however distinctly insane, in one condemnation with criminals of sound mind. It ignores the pathological facts of insanity, which show how essentially diseased are all the actions of a mind in any point conspicuously unsound. It ignores the untraceable character of the mental processes in the insane and the obscurity of their delusions; and it applies to their crimes a hard and fast rule which, it is not too much to say, would apply to nine-tenths of the distinctly insane acts of the inmates of our lunatic asylums. To this we need not say the strongest protest has been raised by members of our profession, and to it also a pointed protest has over and over again been given by popular common sense, as expressed by the verdicts of juries and the tone of the lay press.

It has been urged, however, especially in the letters of Dr. KIRKMAN and Dr. MANLEY, that such absolution of the insane from all the consequences of their actions is unjust, and is likely to be attended with grave consequences to society. Many of our criminal lunatics have, it is said, the power of restraining themselves from the commission of their crimes. The distinction between many of their offences and those of the sane is one of degree, not of kind. They may be, and often are, actuated by the same motives, unconnected with delusion, and of no uncontrollable character. It is further urged that one reason why they do not exercise the needful self restraint is the known impunity with which their crimes may be committed. Dr. KIRKMAN, for instance, asserts that "many lunatics are capable of appreciating right from wrong, have a thorough and sound knowledge of the quality of sinful acts, and are morally and physically able to resist their impulses to commit them." He further mentions that BLAMPIED, whose brutal crime will be fresh in the recollection of our readers, on one occasion threatened to murder him (Dr. KIRKMAN), and said, "If I do commit murder, you cannot punish me for it, because it is contrary to the law to punish an insane man."

It may be doubted whether the question is materially altered by these facts. That it is possible for an insane man to commit a crime, in the motives to which no diseased mental processes and moral feelings are at work, must be admitted; but that it occurs, except in extremely rare instances, is very improbable. It is true, also, that every case must be judged by its merits. The application of a fixed line, either of inculpation or exoneration, to the varying phases of mental weakness, must entail frequently unjust results. But although motives of the same class may incite the sane and the insane to a crime, the disproportion in the two cases in the magnitude of the motive is often sufficient to establish an essential distinction. It was so in the case of BLAMPIED, as at the time we pointed out; and we think that the fact mentioned by Dr. KIRKMAN substantiates the truth of our remarks. "Method in madness" is not to be taken as the same phenomenon as "sanity in insanity." And even if unsound minds do sometimes act in their crimes under motives of ordinary character and degree, the extreme rarity of such a circumstance, the impossibility of proving its nature when it does occur, and the liability to a mistake of cruelly unjust results, are sufficient justification for its practical neglect. The mental processes of the insane are beyond all ken. Dr. MAUDSLEY remarks that it would need an insane mind to follow the windings of another. The first principle of social laws and rules is that injustice to the individual

shall be as far as possible avoided; and public opinion would at once repudiate the purchase, at the cost of such injustice, of any addition to our social safety and well-being which the frequent punishment of lunatic criminals might possibly secure.

Nor can any greater weight be attached to the argument that justice demands the punishment of the insane offender. Its logical result would be that the punishment would have to be graduated according to the apparent criminality of the offender, to the extent to which his action was the result of motives similar to those which would actuate a healthy mind, and to the extent to which they were capable of self-control. In favour of a sliding scale of such a character some abstract arguments might be urged. But the practical difficulty of its application would probably be an insuperable obstacle to its employment; and it would, moreover, be difficult to justify it on the only sound basis for the punishment of crime. It would probably be found to be of little use in furthering either of the chief ends for which penalties are inflicted—the reformation of the criminal or the preservation of society by deterrent influence. It could be justified only on the principle of retaliation, of punishment as a vindictive measure—a principle which, however deeply it may underlie the practice of jurisprudence and the popular theory of law, must always fail to satisfy a thoughtful sociologist.

THE average Briton is not easily impressed by precept, convinced by argument, or turned by the force of persuasion. He is not even prone to be scared into the discharge of his duty by the parade of dangers attending its neglect. He is obstinate, and he is obtuse. These are the two prominent elements in the English character; and it is scarcely too much to say that, although they are ungainly virtues, to them the nation owes its stability and the State its strength. Obstinate perseverance in the face of difficulties, obtuseness in the apprehension of critical danger or defeat, have been the efficient causes of English success and safety in many an hour of peril. It was these qualities Captain WEBB especially exemplified in his unprecedented achievement.

The extraordinary courage, endurance, and self-control of the great swimmer have been recognised by all classes of thinkers, and no more need be said on this topic, except to point out that the mental effort put forth during the later hours of the performance—sustaining the swimmer through the critical period of exhaustion which supervened after two-thirds of the distance had been traversed and the shore-currents off the coast of France were encountered, and enabling him to put on that gallant spurt which landed him faint but triumphant on the sands of Calais—was probably unique. The retention of animal heat during so long a period of immersion, the muscular energy displayed, and the tact and skill evinced in the maintenance of automatic movements after they had ceased to be automatically performed, are the points of interest with which we are most intimately concerned. It must not be forgotten that it was in an unfavourable climate the task was accomplished. The natives of islands in tropical climes are not unfrequently expert swimmers, and accustomed from their infancy to remain many consecutive hours in the water; but the depression of temperature to which their bodies are exposed by immersion is not nearly so great as that undergone by Captain WEBB. Besides which, the exploits of these islanders are generally performed under the rays of a burning sun, and the heat they lose is quickly replaced by floating a few minutes now and again passively on the surface. In the present instance it must be assumed that the swimmer was entirely dependent on the heat generated within his body by the ordinary process of oxidation, accelerated by the muscular exertion; and, considering the continuous loss entailed by contact with new masses of cold water at each stroke, the maintenance of a vital temperature is most extraordinary. The porpoise-grease with which the surface of the body was lubricated no doubt did much to conserve the caloric, but that was not an unqualified advantage, because, cutaneous exhalation being almost entirely suspended for twenty-two hours, the aerial surface of the lungs must have been surcharged with moisture and the process of oxidation somewhat impaired. It is to be regretted that the conditions did not admit of accurate scientific observation. It would have been most interesting to ascertain precisely the physiological phenomena towards the close of the experiment. As it is, we can only conjecture that an exceptional development of muscular force in the heart and larger bloodvessels, probably extending throughout the arterial system, and giving unusual contractile and propulsive power, may have facilitated the achievement. This consideration should act as a deterrent to adventurers who, with equal courage, may not be so well provided by natural conformation for a similar feat.

The muscular exertion involved in the exploit calls for close attention. Almost all the voluntary muscles are brought into play in the act of swimming; and by the continuance of the act for so long a period, with scarcely any interval of rest, the reserve of strength must have been severely tested. It is no uncommon occurrence to see the muscular powers severely tested. In cases of delirium patients will continue restless and sleepless until wholly exhausted, but it is seldom that precisely the same muscles are in action monotonously during so long a period, and the exertion is generally accompanied by profuse cutaneous perspiration, which in this instance must have been almost absent or greatly retarded. The movements necessary to maintain a body afloat and to propel it through the water are of course performed automatically; but after a period in the performance they must in this case have fallen out of the rhythmical series and called for voluntary control and direct superintendence, just as an overtaxed pedestrian finds it necessary, in common phrase, "to drag his legs after him"; that is, the movements of the lower limbs are no longer performed automatically, in the largest sense of the word: they need to be specifically directed. To some extent this necessity may have been an advantage, in so far as it helped to keep the swimmer on the alert, and did some service in keeping off the tendency to sleep.

Practically, we may learn from Captain WEBB's performance,—(1) That the best training for extreme muscular exertion consists in the establishment and maintenance of a state of sound general health. It does not appear that he subjected himself to any of those artificial and really ex-

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hausting processes upon which athletes are apt to lay too great stress, and to which they attach a mistaken value and importance. Any considerable reduction of fat, in the production of what is known as "fineness," would have been an evil not improbably fatal to success, since it would have rendered the deprivation of heat more rapid and extensive. (2) That by judicious management and fortitude it is possible, in an emergency, to perform a prodigy of strength and endurance so that apparently desperate circumstances should not readily inspire the human heart with hopelessness or paralyse exertion. (3—and perhaps this is the most thoroughly practical lesson to be deduced from the extraordinary feat) The most useful and compensative kind of skill is that which enables a man to perform a common act continuously, and under pressure of stern necessity to push the performance to the extreme point of endurance, which, as is proved by this case, lies far beyond the limits of *ordinary* exhaustion. The circumstance that Captain WEBB is what may be called a straightforward swimmer was, so far as the mechanical part of his exploit is concerned, the secret of his success. The waste of energy in "fancy swimming" is wanton, and it reacts most injuriously on the art. Plain, straight-ahead swimming with the breast-stroke is the one worthy enterprise. One word in conclusion to the members of our own profession, who enjoy so large a share of personal confidence. It will be doing good service if they miss no opportunity of inculcating the need of expertness in an art too much neglected. The preservation of sound health and the development of the highest physical and mental power are objects worthy of the most constant endeavours, and success will bring the best and most practical recompense as its reward.

Annotations.

"Ne quid nimis."

SPECIAL HOSPITALS.

IT has been somewhere remarked that one of the best illustrations of the philanthropical spirit of the age is the number of the medical charitable institutions to be found in every large town, and especially in the metropolis. Although this observation is truthful to some extent, it is not altogether free from a fallacy that usually lies concealed behind the plausible appeals placarded on the walls and hoardings in the public thoroughfares, or published from time to time in the columns of the daily newspapers. We speak only of special hospitals. On every hand there are hospitals for this and hospitals for that, hospitals everywhere, all professing to have for their single aim the alleviation of human suffering and distress gratis. It is only a few weeks since we first heard of an institution called the Central London Throat and Ear Hospital, which it appears for more than a year had been hiding its light under a bushel "in unpretentious hired premises in Manchester-street, Gray's-inn-road." But this notwithstanding, so successful had been its operations that the committee determined to try a more ambitious flight, and have accordingly obtained a site in Gray's-inn-road whereon to build a real hospital, the first stone of which was laid last week by Madame Adelina Patti, assisted by many members of the musical world. Of course we have not a word to say against the eminent artiste whose great reputation and influence have been made use of to lift into prominence this obscure institution. If it were not for the clue given in the report in *The Times* of the ceremony of laying the foundation-stone, we should be at a loss to understand how she and her friends were ever induced to countenance the undertaking. We learn, however, that one of the surgeons—the chief surgeon, in fact—of the hospital is also surgeon to the Royal Society of Musicians, and it is therefore within the range of possibility that this gentleman may, through his connexions with the Society of Musicians, have enlisted the sympathies of the members of the Society in this little scheme. Be this as it may, we again strongly protest against the spread of these special hospitals. Specialism is becoming a plague-spot in the profession. But so strong is the current in favour of specialism and its self-elected professors, that even respectable newspapers are carried away with it. *The Times*, in the report already referred to, actually goes out of its way to discuss the question of special hospitals, and attempts to draw a lively picture of the great benefits likely to be conferred on humanity by the use of the laryngoscope and the ophthalmoscope, provided only that these instruments be placed in the hands of none but specialists. In *The Times*, we are told that "The stethoscope is an instrument of different character, which is used by the profession generally." The writer should have known that of all the apparatus employed in the physical examination of diseased persons, there is none more simple in its employment than the laryngoscope. Next to the laryngoscope comes the ophthalmoscope, whereas by universal consent, at least by the consent of those competent to form an opinion, the most difficult to use of all such apparatus is the stethoscope. By this we do not mean the mere placing of one end of the stethoscope to a patient's chest and the other end to the physician's ear, but we mean the interpretation of the multitudinous and complex sounds of morbid and even healthy respiration. We do not hesitate to affirm that where there are twenty students who will make an accurate diagnosis with the laryngoscope or ophthalmoscope, there are not three whose opinions on the physical signs of a chest are trustworthy. And yet a special throat hospital can succeed in securing the sympathy of the distinguished persons who took part in laying the foundation stone of the Central London Throat and Ear Hospital. If the Society of Musicians can be brought to take such an interest in affections of the throat, we may expect soon to see some of the more ambitious of its members establishing a "Hospital for Asthmatic Pipers," or a "Home for Distressed Fiddlers."

Seriously, it is time that the profession generally should take up the grave and pressing question of the multiplication of special hospitals, and the *raison d'être* of every hospital that it is proposed to establish.

LEPROSY IN INDIA.

WE are very sorry to discover the attitude which the Government of India has assumed towards the question of the etiology of leprosy, and the general management of lepers in India. We had hoped that Dr. Vandyke Carter would have been permitted to continue his researches in reference to the disease, and by the aid of special official facilities accorded to him. The Indian Government, however, has not merely declined to act upon the suggestions that Dr. Carter should be appointed a Special Leprosy Commissioner—a refusal we can well understand from a red-tape point of view—but has decided that Drs. Cunningham and Lewis are to be available to take up the microscopic and scientific portion of the inquiry, whilst general facts are to be collected and dealt with by the sanitary commissioners of the country, aided by the civil surgeons in their capacity

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of health officers; thus, it seems to us, elbowing Dr. Carter out of any participation in a matter upon which he has thrown great light by honest and admirable work. We have persistently objected for years past in reference to leprosy to this piecemeal mode of investigation by a multitude of different workers, of varying ideas and degrees of competence, operating through the cumbrous machinery of an already well-occupied department sanctioned afresh by the Government. Our contention has been that one or two competent investigators, working steadily at the subject over a wide area, would be much more likely to succeed in gathering together reliable facts. Probably, as Dr. Carter's views in reference to the general treatment of lepers turn out to be not in accord with those of the Government, it may be convenient to deny Dr. Carter any facilities for prosecuting his inquiries any further. The Government of India expresses itself as disbelieving in the power of segregation, which Dr. Carter advocates, to diminish the amount of leprosy in a country. It remarks that there are 100,000 lepers in India, and the Government "could not undertake to build hospitals for all these people, and to keep up establishments for them, to clothe and feed them, and practically to turn them into sick paupers. To say nothing of the enormous cost which these measures would entail, the difficulties of attempting anything of the kind are insuperable." The Government does not show that segregation would not be effectual if properly carried out; it presents the matter solely in the light of a financial difficulty, though we altogether doubt if the difficulties of adopting segregation would be so great as the Government imagines. Whether it would do all that its advocates affirm of it is another matter.

We further notice that the Government of India, in the memorandum which it has printed on this subject, states that "segregation commends itself to those who believe that leprosy is in some way or other contagious." But segregation is advocated by many modern authorities who disbelieve the contagiousness of leprosy, on account of the hereditary character of the disease, and with the view of preventing its propagation from parent to offspring.

EFFLUVIA AND INFECTION.

EVER since an unfortunate return made by the Registrar-General or some officer of health, a few years ago, informed the public that the London "nightmen" were exceptionally free from disease, there has been a growing contempt for bad smells. It was forgotten that robust constitutions alone could resist constant exposure to the noxious exhalations from sewage in process of emptying the old-fashioned cesspools; and therefore if there were "nightmen," they must needs be peculiarly strong men. This tolerance of nasty effluvia may be a convenient acquisition, especially for those who regard it as a duty to pass some weeks annually in continental towns and watering-places, whither our own sanitary authorities have just sent a commission to pick up suggestions for improved management at home. But it must not be wholly lost to memory that bad smells are the warning signals nature holds out in token of danger. They may not be identical with the causes of disease. The morbific germ may be, and no doubt often is, present where there is no warning odour; and an abominable stench may be comparatively harmless. It is nevertheless a general truth which cannot be safely disregarded, that an offensive smell is an indication of impurity likely to be poisonous. No one would suppose this truth was even formally recognised amongst us, judging by the disgracefully neglected state of our public "conveniences." Those in the streets are unaccountably horrible. In some cases the ammoniacal and other emanations are overpowering. The condition of matters at the theatres is even less endurable. In more than one instance passing to a box or stall in the neighbourhood is a feat scarcely less disturbing than a troubled sea-passage across the Channel. It would seem that nothing more could be necessary than to call the attention of the vestries and managers of theatres to these evils in order to ensure a remedy. Unhappily that is not the case. Local authorities are imperturbable; inspectors of nuisances appear to lack the sense of smell; while everybody connected with theatres and places of public entertainment, from the architect who plans and builds them, to the functionary who performs infinitesimal services for large fees, appears to be imbued with the belief that to pass three or four hours in an atmosphere heated so as to be barely respirable, and surcharged with carbon, sulphur, and ammonia in all their combination, together with the nastiest and most noxious organic vapours, is an integral part of the price they are entitled to exact from the public in return for their amusement. It is not the slightest use to reason with these people, and vain to entreat them. But it becomes a duty just now to warn persons, and particularly the heads of families, returning from the seaside and the country, and therefore highly susceptible to noxious exhalations of all kinds, that it will be only prudent to take special precautions.

LUNACY REPORTS.

IT is a moot question just now—perhaps rather curious than practical—whether the apparent increase of mental disease in certain districts may not be due to the undoubted fact that a larger proportion of cases are brought under official notice and sent to asylums than in times past. It seems probable that this reassuring view of the situation is in part justified. More intelligent attention is happily bestowed on the subject of insanity than it formerly received. Science has begun to dispel some of the clouds which have so long obscured the province of psychology. Disease of the mind is beginning to be recognised as an affliction to be relieved, and perhaps cured, by medical treatment. As this salutary change progresses in public opinion it is only natural that the friends of persons mentally unsound should place them under a curative *régime*, and what was hid away in dark corners as an indelible family disgrace should be more promptly and hopefully disclosed with a view to remedy. It is also gratifying to find, as we pointed out last week, that the study of this neglected but promising subject is about to receive express encouragement at the hands of the great examining bodies. Meanwhile what the profession and the public are most deeply interested to secure are fuller information and a better classification of cases, based upon their nature and origin. It is, of course, the acute forms of mental disease that attract most urgent attention, and these are the varieties of the malady that appear on the increase. In the busy centres of life—the great cities—acute cases abound, while the chronic forms are most common in rural districts. In part probably this may be accounted for by the circumstance that persons afflicted with the less violent varieties of insanity are generally withdrawn from the scenes of hurry and excitement, either laid aside as useless, or sent away in the hope—too often disappointed—of benefit from temporary retirement. It is most desirable this erroneous and alarming view as to the increase of mental disease should be rectified. Nothing is more apt to work mischief than a mistaken fear of evil consequences likely to be brought about by mental activity at a time when such activity is indispensable. It would tend to clear away a fog of error if we could obtain more full and accurate information as to the habits, temperament, and the immediately antecedent circumstances of persons newly attacked. Speaking generally, we believe

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it would be found that the dismal ranks of the incurably insane are recruited from the multitude of purposeless loiterers or spasmodic enthusiasts in life, rather than the steady earnest workers. Again, a great deal more stress than appears either requisite or desirable is laid on the influence of what is called "an hereditary tendency." A process of following out the history of families from parent to child, in place of tracing it backwards with a foregone conclusion, might yield more satisfactory results. The number of persons who enjoy and preserve perfect mental health, in spite of a "tendency," is probably incomparably greater than that of those who are supposed to fall victims to this misfortune. Such matters, together with a more precise knowledge of the class of cases most easily or frequently cured, can only be elucidated by efficient and thoroughly impartial returns. These, we regret to find, are not forthcoming. Time is, no doubt, needed to develop an exhaustive and definitive method of reporting mental disease, but we fail to see the gradual improvement which ought from year to year to be noticeable in the returns edited by the Lunacy Commissioners. The subject is one of extreme urgency and widespread importance. Figures are all very well, but we want *facts*. To be really serviceable these must be laboriously collected, and classed and compared with a degree of scientific accuracy unfortunately conspicuous by its absence in the returns and reports at present available.

EXPERIMENTAL RESEARCH ON THE TOXIC PRINCIPLE OF PUTREFYING BLOOD.

V. FELTZ employed in his investigations on this point blood which had been exposed to the air for several months. Microscopic examination, undertaken from time to time, demonstrated that the mobility of the spirilla and vibriones progressively diminished, and they ultimately disappeared entirely. The bacteria and the zoogloea membranes resisted putrefaction for a longer period, but likewise lost their mobility, and finally nothing could be seen in the fluid but a confused and motionless mass of rods and granules. Coincidently the smell of the blood became less pungent, and the production of ammoniacal compounds diminished. An injection being made of such putrescent blood (in quantity amounting to two cubic centimetres) into the veins of a dog, the phenomena of infection appeared, as evinced by elevation of temperature, loss of appetite, vomiting, bilious and even bloody evacuations. Four of the animals died in the course of ten or twelve days, but two others recovered completely. Old putrefied blood, in which no trace of life could be discovered, exhibited the same toxic action as that in which germs and fungus seemed to be in full activity, and it would appear that the septic action must be referred to some chemical agent which results from the presence and perhaps from the decomposition of the organisms, but is not due to the organisms themselves. On the other hand, the blood of the animals thus poisoned by decomposing blood exhibits numerous bacteria and cocco-bacteria, notwithstanding the fact that no living germ is present in the blood injected. Putrid blood which had stood for five months in the sun, and which had acquired a doughy consistence from evaporation, was perfectly dried in the air-bath and rubbed down to a fine powder. The impalpable powder was mixed in small quantity (one-half c.c.) with two to three c.c. of water, and this was injected into the crural veins of three powerful dogs. The animals immediately exhibited marked depression. After four or five days febrile symptoms were established, with bilious and bloody diarrhœa, vomiting, and biliary urine. Two of the three dogs died after ten days. The blood contained bacteria, and the red blood-corpuscles showed the well-known changes in form and disposition to break up exhibited by those of animals infected with septic blood. Nevertheless, the most minute investigation failed to reveal the existence either of living bacteria or vibrios in the dried powder either before or after its mixture with water. Now, since blood at all stages of putrefaction, till it has even undergone complete desiccation, after a certain period of incubation, induces septic phenomena, we must admit, according to Feltz, that motionless and apparently dead germs are present in the injected fluid, which, when thrown into the healthy blood, return to life, and are capable of reproducing the septic condition.

YELLOW FEVER.

THE Annual Report of the Marine Hospital Service of the United States for the past year, compiled and presented by Dr. John M. Wordworth, Supervising Surgeon, contains some useful particulars as to this disease collected during the epidemics of 1873 and 1874 at New York, Pensacola, and elsewhere. The latter epidemic, which appears to have been comparatively circumscribed, was, as on previous occasions, the result of importation. The disease was brought to the quarantine station by a Spanish vessel, the first victim being a man who was engaged in the hold removing ballast, at a time when, for several days, the thermometer had averaged 78° Fahr. This vessel propagated the disease to another ship that was placed next to her in quarantine, having arrived with a perfectly healthy crew. (So much for quarantine!) Three men working at the quarantine station were next attacked, and afterwards the crew of a lighter, detained in quarantine five days, but also healthy on arrival. These men took the disease ashore. It lapsed for a time, but another case was admitted from without, supposed to be suffering with Chagres fever, and from that time (13th of August) to the middle of December, the disease was epidemic at Pensacola. The total number of cases that occurred was 225, with 55 deaths—i. e., a mortality of nearly 25 per cent. Among the 43 cases admitted to hospital within the first forty-eight hours of attack, 2 deaths occurred. Both of these men had been drinking hard immediately before the seizure; one also had scurvy, and the other pulmonary mischief. Of the 51 hospital entries, there were 42 recoveries and 10 deaths, and Dr. J. S. Herron, surgeon in charge, after an experience of three epidemics (in 1867, 1873, and 1874), records the opinion that, if patients are seen and treated within thirty-six hours after the commencement of the attack, the mortality need not exceed 10 per cent. for hospital, and 5 per cent. for civil practice. There was in this last epidemic a strong typhoid tendency, and less constipation than usual. In addition to the ordinary symptoms, most of the patients were on the third or fourth day covered with an eruption resembling lichen tropicus, and convalescence was followed by desquamation of the cuticle. The disease was introduced from Cuba, and the history of its propagation shows, in a most marked degree, not only the uselessness, but the eminently mischievous effects of quarantine, as carried out at Pensacola.

Dr. Frank W. Reilly, in reviewing the epidemic of yellow fever in the States during 1873–4, discusses elaborately the subject of quarantine, and reports in effect that it might be so carried out as to exclude the disease. But inasmuch as this process means, practically, annihilation of commercial interests, an intelligent and well-managed sanitary supervision, examination, and isolation at the various ports offer the best and most efficient substitute. The portability of the poison is once and again, in this last epidemic, proved most indubitably, and the important fact is stated that exposure to a temperature of 32° F. completely destroys it, though it may remain for an unknown length

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of time in a quiescent state when not subjected to a freezing temperature, or exposed to conditions necessary to its multiplication. Dr. Reilly says: "I consider the most reliable method of disinfecting a ship is to batten down her hatches and reduce the temperature of her hold to 30° F., and to keep her in that condition for four or five days, so that the bilge-water may remain frozen for that length of time." During the epidemic, 15,410 cases occurred in the States, 3397 of which were fatal.

Port sanitary authorities in this country are not likely to be called upon to deal with this disease, in consequence of the temperature required for its development; but this report is noteworthy, as regards general sanitation afloat, because it shows the spread of an international feeling against a quarantine of exclusion, which is impracticable, and a quarantine of prolonged detention, which is useless.

SAILORS' DWELLINGS AFLOAT.

IT would possibly have been *mal apropos*, but it would most assuredly have been useful, if the Artisans' Dwellings Act just passed had included some provisions for sailors' dwellings afloat. The Merchant Shipping Act of 1867 did something to improve the condition of these places, enacting that every seaman shall have appropriated to his own use "not less than seventy-two cubic feet and twelve superficial feet, securely constructed, properly lighted and ventilated, properly protected from weather and sea, and, as far as practicable, properly shut off and protected from effluvium which may be caused by cargo or bilge-water." We are reminded of the unsatisfactory results of this piece of legislation by looking over the last half-yearly report issued by the City Corporation as Sanitary Authority of the Port of London, by which it appears that in forty-three cases the quarters of the crew were found in an ill-ventilated state, and suggestions for their improvement made by the officers of the sanitary authority were adopted. It is, of course, evident enough that the Marine Department of the Board of Trade, as their arrangements are at present constituted, have no means of judging whether the clauses of the Act above quoted are carried out in their integrity. Anyone who cares to take the trouble may visit vessels in the port of London, the accommodation given to the crews of which is not fit for dogs or pigs. Last year three men were killed (i.e., suffocated) by the effluvium arising from a foul cargo shipped at Barking, and it was found that they were lodged in a miserable lower forecastle, on a level with the freight, and barely separated from it by a decidedly fragmentary bulkhead. In these and analogous cases, as the law now stands, the Port Sanitary Authority can only suggest, and cannot enforce, structural alterations. The Merchant Shipping Act provides legislation which, in this particular, as in that relating to medical inspection of seamen, is a dead letter. There is a report now before us, headed "The Hygiene of the Forecastle," contributed by Dr. Heber Smith to the last Annual Marine Hospital Service Report of the United States, which entirely endorses all that we have recorded about homes afloat. It contains two or three very correct sketches of ships' forecastles, which show that they are, as the author says, "the neglected point of sanitary police." And a little book called "Modern Naval Hygiene," by Dr. Leroy de Merecourt, translated from the French by Staff-Surgeon John Buckley, of H.M.S. *Endymion*, speaks most emphatically on the importance of paying special attention to this important subject. All lower forecastles in vessels of less than 300 tons should be abolished. It is impossible to ventilate them sufficiently; there must always be an unhealthy, and sometimes a dangerous, proximity to the cargo, and the hatchway is usually so arranged that in the event of a collision or other accident near the bows a complete blocking up of all means of exit may occur, and indeed has frequently occurred, and the unfortunate sailors below have been drowned simply because they were imprisoned in their berths. In large steamships with lower forecastles, employed on telegraph and other works in equatorial latitudes, it is very desirable, on the score of temperature as well as cleanliness, to substitute hammocks for bunks. The entire space can then be cleared and cleaned without difficulty, as no holes and corners exist for the lodgment of foul material. In ships with large upper or topgallant forecastles it is better to have the bunks ranged amidships than along the sides of the vessel. These suggestions are sufficient to show that more attention should be paid to the condition of sailors' dwellings afloat. Shipowners are, as a rule, glad to adopt suggestions that are found to be practicable and useful, as instanced in the number of changes effected in vessels on the Thames during the past year through the agency of the port sanitary authority. In any future legislative changes the responsibility of the work should be more definitely fixed. As matters now obtain, the Board of Trade legislate, but know nothing about the results, and the local authority are bound by law to visit and inspect, but cannot, except in very gross cases of insufficient accommodation, legally compel structural changes to be carried out.

THE MEDICAL OFFICER OF ST. GEORGE'S, HANOVER-SQUARE.

THE Guardians of St. George's Union cannot be congratulated on the way in which they have ended the inquiry into what we suppose we must call the charges against Mr. Fenton. The principal of these had reference to Mr. Fenton's behaviour in regard to an order to attend a man named Callaghan who died before Mr. Fenton's call, though the evidence showed that Mr. Fenton called very soon after the order reached him. The case was investigated by a jury. By the way, it is gratifying to put on record the case of one jury which was noble enough to refuse to censure a medical man because he was absent. But they received some garbled information, which led a contemporary unfortunately to publish a paragraph headed "Charge against a Parish Officer." This paragraph was referred to the guardians by the Local Government Board for inquiry. Another charge had reference to the case of a man named Murphy, and entirely broke down. As Mr. Fenton was able to show that he went almost directly to the man Callaghan, we should have thought that the guardians would be only delighted at the triumphant defence of their medical officer, and straightway have recorded their satisfaction. Viscount Pollington, with several other guardians, seemed anxious to pass a motion approving the conduct of Mr. Fenton. But the guardians were not equal to such a gracious course, and contented themselves with the following resolution:—"That no further steps be taken with regard to the charges against Mr. Fenton unless they are considered necessary by the Local Government Board." This is a virtual admission of the unfoundedness of the charges, and not Mr. Fenton, but the board must suffer in public estimation by the event. We congratulate Mr. Fenton on his defence. We will not justify every word of it, or some terms in which he characterises a medical member of the board, or his letter to a magistrate on the mental condition of a neighbour. But he has triumphantly repelled the chief charges brought against him, and shown that they should never have been brought. The frequency with which such a result follows charges of this kind will surely tend to make them less common.

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RECENT METROPOLITAN AND PROVINCIAL URBAN DEATH-RATES.

DURING recent weeks the death-rate in London has more than once been lower than in any of the seventeen large provincial towns for which weekly returns are published. The Registrar-General, in his last weekly return, especially notices this fact, and states that whereas the annual death-rate in London, with its estimated population of 3,445,160 persons, during the week ending the 18th inst. did not exceed 20 per 1000, it averaged 27·2 in the seventeen other large towns, the aggregate population of which is estimated at 3,286,873, or rather less than that of the huge metropolis. The acceptance of the general death-rate—that is, the proportion of deaths to population—as a test of the health or sanitary condition of a community has, it appears to us on insufficient grounds, been frequently called in question; it may, therefore, be well to notice the recent death-rate in London and in the seventeen provincial towns from epidemic or preventable diseases. During the week ending the 18th inst. the annual death-rate in London from the seven principal zymotic diseases was equal to 4·9 per 1000, of which 2·2 was due to diarrhœa, principally infantile; in the seventeen provincial towns the zymotic death-rate averaged 8·3 per 1000, and the diarrhœa-rate was 5·0. Thus the fatality from zymotic diseases in seventeen of the largest provincial towns exceeded that in London by 70 per cent., and the fatality of diarrhœa was more than twice as great. Infant mortality, too, in the provincial towns compared most unfavourably with that in London. There is no reason, therefore, to believe that the general death-rates quoted above, which point to a recent far lower standard of health in our large provincial towns than in London, are to any considerable extent delusive. It may be mentioned that the health of London just now is not, for the time of year, exceptionally favourable, as the mortality from both scarlet fever and whooping-cough has been for some time above the average. Neither is the health of the seventeen other large towns exceptionally unfavourable, although scarlet fever is fatally prevalent in Bradford and Bristol. It is, indeed, impossible to avoid the conclusion that London has had a good start in the race for sanitary improvement, and that our other large towns have much lost distance to make up.

DUTIES OF JURORS.

THE jury empanneled to ascertain the "cause of death" in the case of alleged poisoning by strychnine at Norwood displayed more than common spirit in an extraordinary fashion. The foreman and certain independent members of the judicial twelve took the matter out of the hands of the coroner, and proceeded to examine the witnesses in their own way, and to their hearts' content. They inquired into the existence and credibility of rumours, they expounded their views as to how the alleged crime might have been committed, and generally conducted the investigation in a fashion at once original, and, to the outside public, probably entertaining. It is impossible to give higher praise to their proceedings. We are not sure that the business of the coroner's court is generally transacted in the manner best calculated to assert the majesty of the law, or to maintain the dignity of its local administrators, but this new method of practically deposing a coroner in his own court, and making the jury supreme, is one which certainly strikes us as inconvenient, and likely to produce dire confusion. There can be no question as to the expediency of making the inquiry into a cause of death as inquisitorial as may be consistent with law and justice; and it is, perhaps, necessary that more latitude should be allowed to both judge and jury in such a court than is either requisite or wise in the case of a court of law; but there must be rules of procedure, and to the practice enjoined by custom coroners, jurymen, witnesses, and all concerned should submit themselves. It would be a great evil if these courts were reduced to a lower status in public opinion, and permitted to sink below the point of dignity their present condition implies. We are not sure that they would bear depletion in either respect without consequences so serious as to be fatal to their repute, perhaps to their existence. Indeed, we would go so far as to hint that coroners might with advantage keep a more jealous watch over the conduct of their courts, and emulate the business-like earnestness and dignity of tribunals to which they need not be vastly inferior, although they are tributary.

CUCURBITACEOUS ANTHELMINTICS.

SOME investigations have recently been made by M. Heckel into the active part of pumpkin seeds. These seeds have been much used of late for the expulsion of the tapeworm, for which purpose they were employed in the early part of the last century. The mode of their administration has hitherto been to give the bruised seeds in large quantities suspended in water, the outer envelope only having been removed. About two ounces of the seed was the ordinary dose. It is probable that so large a quantity contains much inert matter. Some recent observations apparently indicate that the active principle is contained only in the embryo. To ascertain whether this is the case was the chief object of M. Heckel's observations. He first administered, in two cases of tænia, about six ounces of the perisperm, tegumentum and testa, a purgative of castor oil having first been administered. The tapeworm was not expelled in any case. In two other cases the membrane surrounding the embryo was given—about half an ounce,—preceded and followed by a dose of castor oil. In each case the tapeworm was expelled entire. Subsequent experiments yielded the same result. This membrane was then carefully examined, and found to consist of two membranes separable by maceration in water. The outer membrane contained a resin in small quantities (one in seventeen), which M. Heckel believes to be the active agent. He believes that the castor oil acts not only by its purgative effect, but by dissolving the resin and rendering it active. The second membrane contained more chlorophyll than resin. It must not be forgotten that these seeds contain a fixed oil, to which their qualities have been ascribed, and which may be obtained by cold expression from the seeds in the proportion of half an ounce to a pound. This oil has been used with success, in repeated half-ounce doses, in cases of tænia.

THE HOME OF THE COSTERMONGER.

WE hear that there is some prospect of a new stack of Peabody buildings being erected in the very heart of that vile rookery which lies between Lincoln's-inn-fields and Drury-lane. It is one of the very worst of the London slums. The greater number of the houses in it are in an infamously insanitary condition, and are a standing disgrace to our municipal authorities. We have ourselves repeatedly drawn attention to the dismal district, and urged the importance of reform. But it must not be forgotten that reform in such a matter is in some senses a dangerous as well as a difficult operation. The population of such a district as this is often of a most complex character, its members agreeing only in the one peculiarity of the direst poverty. Burglars, pickpockets, and utterly worthless vagrants are huddled cheek-by-jowl with costermongers, porters, labourers, "supers," and a thousand nameless out-

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siders of London life, a vast proportion of whom are honest and would be decent if they could. Now all these people, even the thieves, must live somewhere, and the Peabody-buildings—excellent in their way—are absolutely unfit for, and inaccessible to nearly all of them. A vast number of them are obliged to live in the neighbourhood, and the only effect of pulling their houses about their ears would be to huddle them more and more closely together, and so increase the moral and physical evils of overcrowding. A correspondent of the *Weekly Dispatch*, writing evidently with unusual practical knowledge, draws particular attention to the case of the "costers." These laborious and generally honest caterers for the London poor require accommodation not only for themselves but also for their donkeys, and small surplus stores, often somewhat unsavoury, of yesterday's fish, fruit, and vegetables. So with the vendors of baked potatoes, coffee, and chesnuts. Peabody-buildings would be useless for such as these, even if they were accepted as tenants, and it seems hard that they should be stamped out in the interest of their far more powerful and prosperous brothers, the skilled artisans. Rebuilding is urgently necessary throughout the whole district, but it is a question of the utmost gravity whether the new buildings to be erected should not be made more suitable for the wants of the eccentric population around than the imposing piles which have arisen in other parts of London.

THE ROYAL BENGAL TIGER.

DR. FAYRER, who will accompany the Prince of Wales to India, has just published a little book entitled "The Royal Tiger of Bengal," which contains a map showing the geographical distribution of that animal, and a very spirited illustration of his appearance. As his Royal Highness's suite is composed largely of sportsmen, the issue of such a work is very opportune. Dr. Fayrer is not only a *savant*, but a mighty hunter, and is therefore enabled to describe the most powerful of the feline tribe from a sportsman's as well as from a field-naturalist's point of view.

Dr. Fayrer has, rifle in hand, met the tiger in his native swamps and jungles times out of number, and occasionally had a narrow escape from the claws of the brute. He describes his experiences in a graphic and interesting manner. "Those who have seen the tiger when stripped of his skin," says the author, "can hardly fail to have been struck with the grotesque resemblance to a gigantic human form which is presented by his sinewy and muscular frame as the arms are stretched out on either side. The vast shoulder, arm, forearm, wrist, and hand have a wonderfully anthropoid appearance." These muscles are modifications of those in the human or other mammalian limbs, and attain their excessive development in obedience to the necessities of the creature's existence. As is generally known, the wounds made by the fangs and claws of a tiger are extremely dangerous, although some wonderful cures have been reported.

THE PILLARS OF THE DIAPHRAGM.

MUCH attention has been given to the function of the vault of the diaphragm, but very little to that of its pillars. The action of the pillars of the rabbit's diaphragm has, however, been recently studied by M. G. Carlet. If the abdomen of a living rabbit is opened, and the liver and intestines turned to one side, the pillars are seen distinctly to contract, but simple observation is insufficient to decide whether this occurs before, during, or after that of the vault of the diaphragm. If the contraction occurs before that of the diaphragm, their function will be to fix the centre of the diaphragm, in order to permit the contraction of the arch. If this contraction succeeds that of the rest, their action will be to depress still more the vault of the diaphragm after it has been lowered by the contraction of its peripheral portion. An experiment to determine this could not be made with advantage in most of the mammalia on account of the interlacement of the muscular fibres of the two portions of the diaphragm. In the rabbit, however, the muscle is distinctly digastric, and its two portions are continuous only by the central connecting aponeurosis. M. Carlet made a longitudinal incision in the axis of this tendon, and thus obtained a button-hole-like slit, of which one edge was in connexion with the muscular fibres of the vault, and the other with those of the pillars. The two lips of the slit were uniformly separated and approximated simultaneously so as to imitate the movement of a mouth which opens and closes, presenting an elliptic opening when the diaphragm is relaxed, and a circular opening when the vault and pillars contract. From this M. Carlet infers, first that the contraction of the pillars and the vault is simultaneous, and, secondly, that the pillars have a direct inspiratory action.

COMBINED SANITARY DISTRICTS.

Two new combined districts are about to be formed for the appointment of medical officers of health. One will include the rural sanitary districts of Peterborough, Whittlesea, Stamford, Arrington, Caxton, and St. Neots, and St. Neots urban district. The salary attached to the appointment is £639. The other district will include the urban districts of Cockermouth and Keswick and the rural district of Cockermouth Union; and the salary is fixed at £359 per annum. It is to be observed that some of these authorities have seceded from combinations formed shortly after the Public Health Act of 1872 came into operation. We should like to see a map of England and Wales with the boundaries of all these combinations and scrap districts, urban and rural, accurately indicated. We much doubt if a record of this sort exists even at Gwydyr House. Nothing would show so plainly the wonderful geographical muddle made during the last two years by local authorities, under the instruction and sanction of the general inspectors of the Local Government Board. Meanwhile, what with additions to and secessions from old, and the formation of new, combined sanitary districts, medical officers of health must live in a pleasing state of uncertainty both as to position and income.

CHEAP DOCTORS.

SOME medical men seem to think very humbly of the value of their services Even in London there are medical men who contract to supply advice and medicines for a week for the modest sum of one shilling; or, if the patient is to be visited at home, half-a-crown. Perhaps the most striking instance of this "humbleness" that has come under our notice is that of Mr. Palmer, who, in announcing the discontinuance of all his medical clubs except the Stoke and Melford one, intimates in a handbill that any of the labouring classes wishing to consult him may do so on payment of *threepence*, to include advice and medicine for one person. Those wishing to be visited at home must pay sixpence. We must be permitted to question the right, speaking ethically, of any man to offer medical attendance on terms which must bring the profession into disrespect. The public, even the poor, ought to know that mere medicines cannot be supplied good and sound on any such terms. There is an unfailing connexion in regard to medicine between what is cheap and what is to be avoided. This is not the case of a well-organised club or provident dispensary, encouraging the working classes

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of a district to make provision, by weekly and systematic payments, for good and respectable medical attendance. Such institutions deserve every encouragement. But the case we condemn is that of offering medical services on terms which can only bring them into contempt. There may be no law against such a system, but there is a great unwritten understanding that a man owes something to the dignity of his calling.

GRUDGING MEDICAL CHARITY.

THE dispensers of medical charity among the poor, either in the case of dispensaries or under the Poor Law, have to work under great disadvantages. It is painful to them to know that medical measures are so poorly supported by the general conditions of the patient. But how much harder is it to have any reason to believe that the very medicines which they prescribe are begrudged by those who represent charity. Two instances are before us. One is that of a Poor-law officer, who complains that the Dispensary Committee of his Board had a feeling that the medical officers were extravagant in the use of expensive drugs, and one member of the committee recommended that quassia should be prescribed instead of quinine. It would do this gentleman good to have ague for a week treated with quassia. Another instance is reported in the case of the Tavistock Dispensary, where Dr. Crighton has resigned because—we are sorry to say—one of his colleagues, Mr. Sleman, complained that he gave the patients too much medicine, and a committee seemed to sanction this view. It is only fair to the general body of subscribers to say that they passed the following resolution: "That having understood that Dr. Crighton has resigned, partly because a committee has seemed to sanction some reflections on his mode of prescribing, this meeting most emphatically repudiate any such seeming intention on the part of their committee, and promise to protect the physician against any interference in the future if he will kindly withdraw his resignation."

If we are to give the poor medicines let us give them the best medicines, as a matter of economy as well as of generosity. We entirely sympathise with the high-minded feeling with which both of these gentlemen resented any dictation as to the way in which they should prescribe. Indignation is a proper sentiment towards such interference, not the less so if it comes from a medical quarter. Rich people have comforts and change to restore their lost health; poor people rely on medicine almost entirely. And we would not like to characterise the feeling that would give them scanty supplies or that would substitute quassia for quinine.

CARLO BOTTA.

THE medical profession has reason to be proud of the great historian whose ashes were transferred to Santa Croce at Florence on the eve of the recent festival in honour of Michel Angiolo. Born at San Giorgio del Canavese, in Piedmont, on November 6th, 1766, Carlo Botta graduated in Medicine in the University of Turin. After two years' imprisonment for advanced political opinions, he went to Grenoble, where he was appointed surgeon to one of the regiments of the Army of the Alps. He eventually settled in Paris, where he wrote his two great works on the History of America, and of Italy (in continuation of Guicciardini's). His fortunes fell so low at one time that he was constrained to sell as waste paper 600 copies of his American History to buy medical comforts for his wife. He died in Paris on the 10th of August, 1837, in comparative comfort through the bounty of Charles Albert, King of Piedmont. In transferring Botta's remains to the Pantheon, where monuments are raised to Dante and Alfieri, the Italians have done justice to the historian's power. He was a master of his language, an impartial judge, and a prophet of the national regeneration of his fatherland, to which he powerfully contributed.

"DIPSOMANIA."

How much names have to do with the formation of public opinion is well known. Many a cause has been made or ruined by an epithet, happy or unfortunate, which its friends or enemies have bestowed upon it. It is of the utmost importance that accurate and not misleading terms should become current with the public concerning any important social question. Our newspaper columns have been and still are full of illustrations of the inaccurate idea of the practice to which the term "vivisection" has spread abroad. In another column Sir James Alderson points out how inaccurately the term "dipsomania" describes the condition it is intended to designate. Of this there can be no question, but it is, we fear, too late to attempt to uproot it and to substitute for it the more accurate word which Sir James proposes. Happily, the meaning of the word is now fairly understood by the public, so that the consequences of its inexactness will be less than might at first sight appear probable. It would be long before a new expression became as popular.

HOSPITAL SATURDAY.

CAPTAIN MERCIER must have found that the chair of the Hospital Saturday Fund is like anything but a bed of roses. He will perhaps begin to think it a pity that he ever took so prominent a part in initiating the separation of the Hospital Saturday from the Hospital Sunday movement. They evidently should be regarded as parts of one great attempt to gather the contributions of all classes in support of the institutions by which the sick and dying of the working classes are helped. We shall pass no further judgment on the results of the Hospital Saturday than to say that they display no evidence of the possession on the part of the committee either of the confidence of the working classes or of the knowledge of the way in which to interest these classes in the work of contributing to charities by which they are exclusively benefited. That the working men of London should in a year subscribe some £5000 only to its hospitals and dispensaries is a discredit to them, not to use a stronger word, and can only be palliated by supposing that the Hospital Saturday Committee has not their respect.

MONOBROMIDE OF CAMPHOR.

THE physiological properties of monobromide of camphor have been recently investigated further by M. Bourneville, who has communicated his observations to the Académie des Sciences. His observations agree in the main with those of M. Pathault, to which we alluded a few weeks ago. He finds that the compound lessens the number of beats of the heart, and induces a contraction of the auricular vessels. It lessens the frequency of the respirations without interfering with their rhythm. It lowers the temperature regularly, and in the fatal cases this fall of temperature progresses to the end. The fall was very considerable, amounting in the cat to 15° Cent. In the cases which recovered the fall in temperature was succeeded by a rise which continued until the normal or natural point was reached, but a much longer time was occupied in the rise than the fall had taken. The monobromide of camphor was found to possess undoubted sedative properties. It produced no digestive disturbances, but its continued use led, in cats and guinea-pigs, to a rapid loss of flesh. It has been found useful in cardiac affections of nervous origin, in asthma, cystitis, and cases of epilepsy in which the attacks occurred simultaneously with attacks of vertigo.

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THE EVILS OF THE COUNTER.

PUBLIC attention has been called by Mr. Fred. Smith of Leeston, near Weston-super-Mare, to the hardship inflicted on young girls in compelling them to stand behind the counter for eight, ten, or twelve hours daily, without opportunity of sitting down in leisure moments. The practice is unquestionably a frequent cause of physical weakness of a serious character. The hours of standing are continued from day to day and week to week, through periods when to many the exertion and the erect posture are sources of great suffering. The need for such rest as opportunity renders possible is, we are glad to believe, recognised in a large number of houses of business. It should be in all, and it is a disgrace to the humanity of employers that a public demand should be necessary before the requisite arrangements are generally conceded.

THE BRITON LIFE OFFICE.

WE publish in another column a report of the Briton Medical and General Life Association, issued at an extraordinary meeting held last Tuesday. As is pretty generally known, the profession is greatly interested in the success of this Office, nearly 3000 medical practitioners being connected with it. It is therefore to us a source of sincere pleasure to read the satisfactory financial statement now made, and which will doubtless remove any prejudice against the Office created by the recent attacks made on its stability. With the new series a large influx of fresh business is anticipated. We are given to understand that the same liberal arrangements as regards fees paid to medical men will be maintained.

COTTON-WOOL FOR SURGICAL DRESSINGS.

AT the last sitting of the Paris Academy of Medicine the question of cotton-wool for surgical dressings was again debated, with the result of showing the beneficial effects of that mode of dressing. Both Professor Gosselin and M. Alphonse Guérin spoke most highly of the good results they had obtained. They were not agreed, however, as to the cause of the excellent properties of wadding applied to wounded surfaces, M. Guérin believing that it was due to the interception of germs by the cotton-wool, and M. Gosselin referring it to the warm, even, comfortable temperature kept up by the cotton-wool.

DEATH OF DUCHENNE DE BOULOGNE.

IN our last issue we mentioned the illness of Duchenne de Boulogne. We now have to record with regret the death of this celebrated physician, whose researches on the nervous system and the medical applications of electricity are universally known. Duchenne had a stroke of apoplexy about three weeks ago, from which he partially recovered, but which has ended in destroying his life. In our next issue we shall notice more at length the career of the indefatigable and talented worker, who laboured to the last, and whose energies neither fortune nor success nor age ever diminished.

THE INTERNATIONAL MEDICAL CONGRESS AT BRUSSELS.

ON Monday last the formal inauguration of the Brussels International Medical Congress took place in the Ducal Palace, and in the presence of the King. Mr. Vleminckx, President of the Brussels Academy of Medicine, took the chair, supported on his right by M. Delcour, Minister of the Interior, and on the left by M. Anspach, Burgomaster of Brussels. Several speeches were made on the occasion; one by M. Vleminckx, another by M. Delcour, and a third by M. Anspach, which terminated the sitting.

IT is seldom we have to record anything in the nature of a "strike" in our long-suffering profession. Symptoms of revolt, however, occasionally appear when the burden has been laid on too heavily, as, for instance, when a man has to administer to the medical wants of a Poor-law district of 50,000 square acres or so for the munificent sum of £20 per annum, or less. Last week the Carmarthen Board of Guardians received a memorial from six medical officers of the union asking for an increase in their salaries, with an intimation that if the request were not granted they would resign. Consideration of the matter was postponed for a fortnight. We hope the most obtuse guardian or vestryman in the kingdom will concede that six members of an honourable profession would never combine in this manner to rectify their wrongs unless they had sufficient grounds of complaint.

WE have to record this week the death of Mr. G. L. Cooper, F.R.C.S., which took place on the 17th inst., at the age of sixty-five. Mr. Cooper was the nephew of Samuel Cooper, F.R.S., the author of the well-known Surgical Dictionary. The subject of our notice, after studying in London and Paris, obtained the M.R.C.S. in 1834, and was admitted a Fellow a few years later. He was surgeon to the Bloomsbury Dispensary, and a teacher of vaccination at University College Hospital. Mr. Cooper had contributed several articles to medical literature.

IN London last week 1338 deaths were registered, including 15 from measles, 82 from scarlet fever, 9 from diphtheria, 50 from whooping-cough, 24 from different forms of fever, and 147 from diarrhœa. Different forms of violence caused 53 deaths. A death from hydrophobia was recorded at St. Thomas's Hospital. The mean temperature during the week showed a marked excess upon the mean for the corresponding period in the last sixty years.

AT the meeting of the University Court of St. Andrews, held on Wednesday, Dr. James Bell Pettigrew, F.R.S., &c., Lecturer on the Institutes of Medicine at the Royal College of Surgeons, Edinburgh, was unanimously appointed to the Chair of Medicine in the University, vacant by the death of the late Dr. Oswald Home Bell. Mr. Adam Wilson, M.A., Classical Master in the Dundee High School, was appointed Classical Examiner.

THE Charing-cross Hospital is now undergoing important alterations and additions, which when completed will nearly double the present accommodation of the institution. A sum of £13,000 will be expended in the work of enlargement, which comprises the erection of an entirely new storey. It is stated that the hospital will be temporarily closed to all save very urgent surgical and medical cases.

IT is reported that cholera has attacked the troops now stationed in Lucknow, and that it was found necessary to send the 65th Regiment some distance away. These periodical outbreaks of the disease among our soldiers seem to be inevitable. As far as we can learn, the civil population has not suffered in any appreciable degree.

A CORRESPONDENT writes to complain of what he terms the "intolerable stench" from the Tottenham Sewage Works and from the river Lea, and wants to know whether the medical officer of health for the district cannot interfere to remedy the evil.

WE regret to have to record the death of Dr. William Richardson, of Kilburn, at the age of sixty-four. The deceased gentleman was M.D. of St. Andrews and M.R.C.P. London. He was the author of a book entitled "Remarks on Diabetes and its Treatment."

THE *Army and Navy Gazette* states that Brigadier-General Campbell, C.B., has been compelled to run away from the War Office in consequence of the extremely foul condition of the atmosphere in the establishment.

THE will and codicil of the late Mr. John Churchill, the well known medical publisher, were proved on the 6th inst., the personal estate being sworn under £60,000.

THE *Pall Mall Gazette* states that several ships have recently arrived from the East with cases of scurvy on board.

Correspondence.

"Audi alteram partem."

"DIPSOMANIA."

To the Editor of THE LANCET.

SIR,—The greatest of all our evils in the present day, the fundamental cause of all crime and misery, intoxication, is naturally the most frequent subject of discussion. It is to be lamented that the scientific term used in the discussion is neither accurate nor applicable. The word "dipsomania," by which the effects of excessive indulgence in spirituous liquors are meant to be described, is a mere euphuism, unworthy of the grave importance of the subject which it is meant to elucidate. If it is at all desirable to use a Greek word for an evil condition of modern society it should at least be accurate, and not, as now, be unintelligible even to the nation from whom the term is borrowed. Dipsomania, literally construed from the Greek, means "madness induced by thirst." Now it is not thirst which induces the evil habit of drinking. People fall into the terrible condition of drunkenness, not by the desire to assuage thirst, but by compliance with a sensual gratification of tasting spirit, and for the enjoyment of obliviousness and relief from painful or troublesome feelings. In the case of the beer-drinkers there may be some sense of thirst to be alleviated, but it is not this class who suffer from maniacal excitement. The hideous, crying source of crime and misery is, indulgence in spirituous liquors. The Greek word for inebriety is Μέθη. "Methomania" would, in regard to classical derivation, be the correct word, and it would be comprehended by every modern Greek. The Greeks of the present day have a saying, Μέθη μικρὰ μανία ἐστι—"Inebriety is a minor madness."

Your obedient servant,

Berkeley-square, Sept. 18th, 1875. JAMES ALDERSON.

THE BRITISH MEDICAL ASSOCIATION.

To the Editor of THE LANCET.

SIR,—It is surprising that no one has replied to Dr. Kebbell's letter in THE LANCET of 28th ult., on the subject of the proposed visit of the Association to this town, since the facts so temperately related by him are most damaging, and should either be met and disposed of, or be acknowledged as ground sufficient for the abandonment of the project. The resident supporters of the invitation are warm on the subject, as is sufficiently proved by the readiness they have shown to do battle for it; their reticence therefore on this particular occasion can only be regarded as evidence of their inability to answer the letter in question.

But members who reside at a distance, and who consequently are unacquainted with the views and opinions of those concerned on the spot, might have been expected to show their interest by making inquiry into a matter that is certainly of importance to the Association.

Perhaps, however, it would be fair to assume that in their minds Dr. Kebbell's statements were, after all, but the embodiment of personal views, and as such liable to the suspicion of partiality and incompleteness; and, if so, they might not unnaturally await some explanation or further evidence of their validity. If this supposition be correct, what such persons require they may easily be furnished with; it lies on the surface, and is, in short, no other than the unpopularity of the Association itself amongst us.

I forbear to occupy your space with reasons and facts in proof of this position, and, unless challenged, will content myself with the assertion that we are at once grievously disappointed in the weak and barren policy of the Association, and profoundly distrustful of the *Journal* which seems to be its only outcome.

In the local controversy on the subject, as is, perhaps, natural, a good deal of personal feeling has been evoked. But in reality all such considerations are quite irrelevant, and ought to be dismissed without further thought. It is the Association itself, as at present conducted, that is obnoxious; and that being so, no one can be surprised that we so far refuse to condone its *lâches* as to invite those responsible for them as guests in our midst.

I am, Sir, yours obediently,

R. BRANWELL.

Montpelier-place, Brighton, September 21st, 1875.

THE LATE DR. MAUNSELL, OF DUBLIN.

To the Editor of THE LANCET.

SIR,—I think it right to inform the readers of your journal that a memorial fund is about being raised in order to show a recognition of the late Dr. Maunsell's literary services to the public, the medical profession, and especially to the Poor-law service of the United Kingdom. The desirability of such a movement was thought of immediately after his death; but some delay was occasioned by the necessity of consulting the feelings of the family. His widow, however, having consented to receive a memorial, the difficulty has been removed. We shall have a special meeting in Dublin on Friday, the 24th inst., for the purpose of starting an organisation to carry out this object. Meanwhile subscriptions will be thankfully received by Dr. Joseph Rogers, 33, Dean-street, Soho, London; Dr. Grimshaw, 13, Molesworth-street, Dublin; and by myself.

I am, Sir, your obedient servant,

28, North Frederick-street, Dublin, Sept. 20th, 1875. ALBERT O. SPEEDY.

The following subscriptions to the Maunsell Memorial Fund have been announced:—

	£	s.	d.
Sir William Jenner, Bart.	5	5	0
Sir Dominic Corrigan, Bart.	2	0	0
Dr. Banks	3	2	0
Dr. Robert M'Donnell, F.R.S.	2	2	0
Sir William Wilde	1	1	0
Dr. Cruise	2	2	0
M. J. Kilgarriff, F.R.C.S.I.	5	0	0
Dr. Dudley White, No. 3, North City Dispensary	1	1	0
Dr. Speedy, No. 3, North City Dispensary	5	0	0
Lambert Ormsby, F.R.C.S.I.	1	1	0
Dr. R. T. Wilson, No. 2, North City Dispensary	1	1	0
Dr. Joseph E. Kenny, No. 2, North City Dispensary	1	1	0
Dr. John A. Byrne, No. 4, South City Dispensary	1	1	0
Dr. Smyly	5	0	0
Dr. Edward Moran	1	1	0
Dr. Spencer, Burton Port, Co. Donegal	1	1	0
Dr. James Shaw, Dublin	0	10	6
E. P. Ward, No. 3, North City Dispensary	0	5	0
Dr. Edmund B. Blakely	1	1	0
Dr. Baxter	1	0	0
Dr. Atthill	2	2	0
E. S. O'Grady, F.R.C.S.I.	5	5	0
Dr. M'Clintock, F.R.C.S.I.	3	0	0
Dr. Kidd, F.R.C.S.I.	3	3	0
Dr. Grimshaw	1	1	0
Professor M'Dowel	1	0	0
Charles P. Moore, South City Dispensary	2	2	0
Dr. Churchill	2	2	0
Dr. Ross Maguire, Castleknock Dispensary	1	0	0
George Porter, F.R.C.S.I.	2	2	0
John M'Donnell, M.D., Medical Commissioner, Local Government Board, Ireland	5	0	0
R. W. S. Maybury, Queen's Bench	1	1	0
Dr. Joseph Rogers, ex-President English Poor-law Medical Officers' Association, London	2	2	0
Dr. Cameron, City Analyst	1	1	0
Dr. Peel, No. 5, City Dispensary	5	5	0
Dr. J. F. Pollock, Blackrock, Co. Dublin	1	1	0
Dr. Hyman Marks, South City Dispensary	2	2	0
Henry G. Sadler, Esq.	1	1	0

ABUSE OF MEDICAL CHARITY.

To the Editor of THE LANCET.

SIR,—A good deal has been written of late concerning the abuse of medical charity. In many instances this abuse has been perpetrated in such a manner as to put the control of it beyond the power of medical men themselves, as, for instance, that which takes place in the out-patient rooms of our large hospitals, &c. Some cases, however, appear to be connived at by our *confrères*, as in the following instance, and I should be very glad to have your opinion on it.

A patient of mine has just been spending a month at W———. She is a retired shopkeeper, and in very comfortable circumstances, perfectly able to pay me (her medical attendant) my bill as soon as it is delivered. In fact, her means may be judged of by anyone who considers that she was residing, for her own pleasure, at the seaside for a month in the height of the season. On my seeing her on her return, she told me she had been under the care of Dr. ——, as an out-patient at the W——— Sanatorium. She told me with considerable satisfaction that "it was all gratis, and she had just as good advice as if she had called at Dr. ——'s house and paid a guinea for it." I asked her if any questions were asked as to her circumstances, &c. She said, No, and added that "there were some of the patients that appeared quite ladies and gentlemen, and one young man brought his sister, who had a gold brooch and locket and a gold watch and chain."

Now, Sir, the consequence is this. My patient brings with her a prescription from this sanatorium, by which she goes on taking medicine made up by her druggist, instead of again putting herself under my care. I see that the W——— Sanatorium is founded for the relief of "diseases peculiar to women and children." Whether the medical officers consider diabetes (such is my patient's malady) to come under that category I know not; but I should like to ask you, Sir, whether you think the abuse of medical charity can be carried much farther than in the case I mention. I asked my patient how she heard of this charming charitable institution? She said she heard of it from a lady with whom she became acquainted by sitting reading near one another on the beach, and who strongly impressed upon her the advantages (particularly pecuniary) to be derived from an attendance at its out-patient department.

I remain, Sir, yours obediently,

Cirencester, Sept. 8th, 1875. EDWARD CRIPPS.

BIRMINGHAM.

(From our own Correspondent.)

THE medical education of women question is now causing great public excitement in this town. An influential deputation, headed by the Mayor, and including Dr. Heslop, and Messrs. Furneaux Jordan and C. J. Bracy as medical representatives, attended the last meeting of the Council of Queen's College, and strongly urged the desirability of provision being made at the College for the teaching of women students. The Mayor assured the Council that the introduction of female students would popularise the College, and that the deputation would be prepared to overcome any financial or other difficulties that might arise to prevent the realisation of their wishes. Dr. Heslop pointed out that at present ladies were obliged to go to Paris, Zurich, or America for a medical education, and that, as the general public had come to the conclusion that those women who persisted in undergoing a medical training should have an opportunity of doing so in England, it was better that the education should be given in a school like that of Birmingham, which had a reputation, recognition from the Medical Council, and all the machinery for giving a good medical education, rather than that a new educational institution for the special use of women should be started. The Rev. C. Clarke, as chairman of the Queen's Hospital Committee, expressed his belief that there was public spirit enough on the part of the board to meet, if possible, the views of the deputation, and to prevent any difficulty being thrown in the way of the admission of women to the hospital, provided the Council of Queen's College would themselves accept their co-operation. After a long discussion, an understanding seemed to be arrived at that the assent of the hospital authorities must be obtained, and that the deputation must be prepared to guarantee the College a sufficient amount to cover the fees in those cases in which the Professors declined to lecture to double classes.

Dr. Richardson's success as a popular lecturer is so well known that one was not surprised at the large audience that assembled to hear his lecture on "Tobacco in relation to Health." The Midland Institute have wisely secured his services, as well as those of Dr. Ferrier, for lectures on physiological subjects during the ensuing session.

The medical profession in Birmingham have to deplore the death of Dr. Alexander Fleming, late Physician to the Queen's Hospital, at the comparatively early age of fifty-one. He had been in practice here about eighteen years, and during that time had acquired a high and well-deserved reputation as an exact and careful physician, and as a therapeutist of great skill. His kindliness and patience as a clinical teacher made him respected and beloved by all pupils, and his courtesy and ability secured for him the esteem and regard of a large circle of professional as well as private friends. Dr. Fleming died from chronic renal disease. Death has also been busy among the younger members of our body. Mr. E. B. Ravenhill, late house-surgeon to the General Hospital, Wolverhampton, died suddenly at the age of twenty-five, from syncope, after a few days' suffering, with symptoms of gastro-intestinal catarrh, the effect in all probability of overwork. Mr. J. T. Smith, of Sutton Coldfield, has also died quite suddenly, while in the full vigour of manhood. He had been, like Mr. Ravenhill, a distinguished student of Queen's College, and he had subsequently held the appointments of house-surgeon to the Lying-in Hospital and resident medical officer at the Birmingham Dispensary.

The Medical Institute is said to be making good progress. Two hundred volumes have already been presented, and a "local habitation" is about to be secured to give room for further gifts and purchases.

The necessary arrangements are being made for Hospital Sunday. The appeal from the pulpits will be made on Oct. 31st, and will be on behalf of the Queen's Hospital.

Diarrhœa is very prevalent, but in other respects the town is healthier than usual at this season of the year.

Birmingham, Sept. 20th, 1875.

NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

WE boast of a Vegetarian Society here, and the other night it gave a grand banquet in furtherance of its principles. It was very numerously attended by ladies and gentlemen. The *menu* was as follows:—Vegetarian pie, vegetable marrow stuffed with fried potatoes, potatoes roasted, potatoes mashed, haricot beans and parsley sauce, English beans, English peas, tomatoes, onions boiled, onions roasted, boiled lentils, plain pudding, rice pudding, sago pudding, mixture of apples and preserved stewed apples, and stewed pears. Numerous enthusiasts in the vegetarian's *régime* were constantly explaining the qualities of the various dishes. The majority of the guests seemed undoubtedly to enjoy the banquet, but to many a sigh of relief involuntary came when the cooked dishes were removed and the *dessert* fruit was placed upon the table. A public meeting was afterwards held to promote vegetarian views, and the company separated on the whole well pleased with their harmless experiment.

The ancient and picturesque little town of Chester-le-street, with its historical castle at Lumley and interesting church so rich in sculptured monuments of knights and crusaders, used to be a favourite drive from Newcastle and Gateshead, and its neighbouring slopes attractive resorts for pic-nic and other excursion parties; but latterly the good old town has literally fallen into "bad odour" with all health and pleasure seekers, and travellers for some time past have been fain to give it the "go by," and endeavour to reach their destination by circuitous routes rather than

cross its bridge and encounter the smells from its "burn," as the open sewer partly surrounding the town is called. Time was, no doubt, when the Chester Burn was a crystal stream and purling tributary of the Wean, but of late it has become a drain of the foulest character, poisoning the neighbourhood with its nauseous emanations. There have, of course, been meetings called for "the purpose of considering the state of the Chester Burn." "Sanitary meetings," "township meetings," "guardian meetings," inspections, committees, estimates, discussions, propositions, amendments, postponements; but still the stench increases. There has been no amendment in the nuisance; nothing has been really done, notwithstanding all that has been said to remove a plague which bids fair to blight one of our most quaint, interesting, and beautiful of northern towns.

Newcastle-on-Tyne, September 8th, 1875.

IRELAND.

(From our own Correspondent.)

SOME time since a skating-rink was opened at Kingstown, which has been productive of not a few accidents, sufficiently important to require surgical treatment. Fractures of the radius and sprains and dislocations of the arm and wrist have in some instances resulted from this novel, so-called, skating. On the 6th inst., Mr. John Burr Maguire, a young gentleman only nineteen years of age, fell on the rink and died suddenly of heart disease.

The loss of the ironclad line-of-battle ship *Vanguard* continues to attract much of public attention here. Daily efforts are being made, with considerable success, by Captain Batt, of Devonport Dockyard, and the divers, riggers, and crew of the *Carron* steam-tug, in the recovery of rigging, &c., of the submerged ship. In a medical point, the process of diving at so considerable a depth is a matter of much interest; the present extremely fine weather is most fortunate for the work.

An unfortunate female, Anne Byrne or Burden, has just died at Steevens's Hospital of injuries sustained by falling from or being shoved out of a window, as she asserted, at the Royal Barracks in this city. Evidence has been forthcoming to show the fearfully degraded state of the wretched women inhabiting the houses in the locality to which Anne Byrne or Burden belonged, and which has been long since condemned by the medical officers of that district of the city as unfit for habitation. I believe that a recommendation has been made by the Dublin Sanitary Association that the place in question, Skinner's-alley, should be pulled down, and that the houses comprising it are all of the number condemned long since by the Dublin Corporation as unfit for human habitation. I trust, moreover, that an investigation will be undertaken as to the condition of localities occupied by the class of unfortunates in some of the worst localities in Dublin, and that the inquiry will embrace the very important question of the propriety of extending to this city the Contagious Diseases Prevention Act. Such places are too frequently a snare for young soldiers and other strangers in Dublin, and parties of military are not uncommonly to be seen on duty in such localities, endeavouring to find missing men.

Statements as to the condition and unsuitable position of certain slaughterhouses in Dublin having been made to the Dublin Sanitary Association by owners of property adjoining some of these places, complaining of injury arising therefrom to the public health and to property, the Association asked the local authority for a list of the licensed slaughterhouses, which was at first evaded, and, lastly, refused so discourteously as to draw forth comments from all the leading local journals reflecting severely upon such conduct.

The citizens who have at heart the interests of the working classes, and therefore of the whole community, bound up together as we are by so many ties, not apparent, as it may be, to casual observers, have been much surprised to learn that "the visiting committee" of the South Dublin Union approve the interment of 500 more bodies in a small tract of ground near St. Patrick's Cathedral long used as a burial-ground. I may observe that this place is close to the Meath Hospital and County Dublin Infirmary, is surrounded by overcrowded tenements, from which fever, exanthemata, or other illnesses, are never absent, and it was this neighbourhood that served as a centre for the spread of the worst form of small-pox and of cholera in recent epidemics; indeed, if space permitted, very many other reasons, as the coexistence of manure yards, schools for the poor, dairy yards, &c., in and around this spot, could be given, to show the injudiciousness of the recommendation in question.

The first meeting of the Council of the Pharmaceutical Society of Ireland took place at the College of Physicians on the 10th inst. The proceedings were announced as private, no reporter being present, and were, as I am informed, merely of a preliminary nature. The Council was adjourned, the next meeting to take place on or about the 22nd inst.

Captain Webb's swimming feat has induced others to attempt performances in the same line, which, though on a far more humble scale as to distance, resulted fatally in one case—that of a man who attempted to swim across one of the lakes in the centre of Ireland. Bathers in fresh water should bear in mind that, in addition to the diminished buoyancy of their bodies in water of a less specific gravity than salt water, there is also a greater frequency of coldness in parts of lakes, &c., from springs, which has often been attended with fatal consequences to bathers. In such water, too, there is wanting the peculiar stimulating effect of salt water, which doubtless favours the swimmer in sea water.

Dublin, Sept. 14th, 1875.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Sept. 16th:—

Archer, Robert Kendray, Cathcart-hill, Highgate.
Dearden, John Alfred, Douglas, Isle of Man.
Todd, John, Union-road, Tufnell-park.

The following gentlemen passed the Primary Professional Examination on the same day:—

William John Cant and Alfred Pratt, Queen's College, Birmingham.

THE LATE DR. ALEXANDER FLEMING.—The following resolution, carried unanimously by the Medical Committee of the Queen's Hospital, Birmingham, shows the high estimation in which that gentleman was held by his colleagues:—"The members of the Medical Committee desire to express their deepest sympathy with Mrs. Fleming in her great bereavement. In the death of Dr. Fleming they have been deprived of a most esteemed colleague, and the Queen's Hospital has lost a valued consulting officer."

SUICIDE OF A MEDICAL GENTLEMAN.—A very distressing suicide is announced as having occurred in the West Riding. Dr. Tatham was in the company of his sister in his orchard at Burton in Lonsdale on Saturday evening, and while left alone for a few minutes he cut his throat. On being found in this condition shortly afterwards, he was conveyed into his house close by. Medical assistance was at once obtained, and the wounds were sewn up. The deceased, though sensible, never rallied, and died about two hours afterwards. Dr. Tatham had been suffering from general ill-health for some time, but beyond this there is nothing to account for the act.

MORTUARIES.—At a meeting of the Strand Board of Works, on Wednesday, September 22nd, the following motion, by Dr. Joseph Rogers, was carried unanimously:—"That with the view to the more effectually and economically securing the establishment of mortuaries in the metropolis, this board do memorialise the Metropolitan Board of Works to apply in the next session of Parliament for powers authorising that body to undertake their erection in such parts of the metropolis as may be considered necessary." It was also resolved that a copy of the resolution should be forwarded to the several boards of works in the metropolis, and that they should be requested to co-operate with the Strand Board in pressing the question on the attention of the Metropolitan Board. Dr. Joseph Rogers, Mr. Betts, Mr. Phillips (the representative of the board on the Metropolitan Board), and Mr. Jenkins, the clerk, were appointed to draw up the form of memorial to be forwarded to the Metropolitan Board.

VACCINATION CERTIFICATES BY UNQUALIFIED PRACTITIONERS.—At the Chester-le-street Petty Sessions Mr. Percival Hall, of Holmside, was charged under the 40th section of the Medical Act, 1858, with having signed a vaccination certificate, he having no qualification entitling him to give such certificate. No attempt was made to dispute the facts, but on behalf of the defendant it was contended that the case did not come within the Act. The magistrate, after consultation, inflicted a fine of £10 and costs, but, on the application of the defendant's solicitor, granted a case for a superior court.

Medical Appointments.

ADAMS, R. S., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Lymington District of the Lymington Union.

ADEY, R., M.D., M.R.C.S.E., has been appointed a Medical Officer to the new Branch of the Salford and Pendleton Royal Hospital and Dispensary, Manchester.

BROOK, C., M.R.C.S.E., has been appointed an Hon. Surgeon to the Lincoln General Dispensary, vice Snow, deceased.

BROOKFIELD, J. S., M.D., M.R.C.S.E., has been appointed Medical Officer for the Emley and Flockton Districts of the Wakefield Union.

CALTHROP, E., L.R.C.P.L., M.R.C.S.E., has been appointed Surgeon to the St. Saviour's Hospital and Refuge for Women and Children, Upper Holloway, vice Lucey, appointed Resident Physician to the Ben Rhydding Hydropathic Establishment.

CORBAN, A. E., M.B., C.M., hitherto Medical Officer of Health for the Kimberworth Sub-district of the Rotherham Rural Sanitary District, has now been appointed to the whole district.

CRAWFORD, W., M.B., C.M., has been appointed House-Surgeon to the Blackburn and East Lancashire Infirmary, vice Stewart, resigned.

EATON, J., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator for the Parishes of Sandsting and Walls, Shetland, vice Pole, resigned.

ELDER, G., M.B., C.M., has been appointed Surgeon to the New Hospital for Women, Nottingham.

ELLISTON, G. S., M.R.C.S.E., has been appointed Certifying Factory Surgeon for Ipswich, vice Adams, resigned.

FAY, T., M.R.C.S.E., has been appointed an additional Hon. Dental Surgeon to the Liverpool Dental Hospital.

FISKE, J. F., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Donhead District of the Tisbury Union, vice Thompson, resigned.

FREER, J. H., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Rugeley District of the Lichfield Union, vice Tibbits, resigned.

GREENWOOD, J. W., M.R.C.S.E., L.M., has been appointed Medical Officer for the Shitlington District of the Wakefield Union.

HARRISON, C., M.D., has been appointed Hon. Physician to the Lincoln General Dispensary.

HESSLEGRAVE, J., M.R.C.S.E., has been reappointed Medical Officer of Health for the Golcar, Linthwaite, Longwood, Marsden-in-Almondbury, Marsden-in-Huddersfield, Scammonden, and Slaithwaite Urban Sanitary Districts.

HEAPS, J., L.R.C.P.Ed., L.M., M.R.C.S.E., has been appointed Medical Officer for the Lofthouse-with-Carlton and Thorpe Districts of the Wakefield Union.

HIRST, C., L.R.C.P.Ed., has been appointed Medical Officer for the Ardsley West District of the Wakefield Union.

HORSFALL, H., M.R.C.S.E., has been appointed Medical Officer for the Crofton District of the Wakefield Union.

JAMESON, T., M.D., L.R.C.S.Ed., has been appointed Assistant Visiting Surgeon at Plymouth, Devonport, Dartmouth, Ivy Bridge, and Plympton, under the provisions of the Contagious Diseases Acts (Women), vice Archer, appointed Visiting Surgeon.

KEMP, B., M.R.C.S.E., has been appointed Medical Officer for the Ardsley East District of the Wakefield Union.

LORRAINE, W. J., L.R.C.P.Ed., L.M., M.R.C.S.E., has been appointed Medical Officer for the Chevet, Sandal-Magna, and Walton Districts of the Wakefield Union.

LOUDON, J., M.D., has been appointed Medical Officer to the Combination Poorhouse, Hamilton, Lanarkshire, vice Naismith, deceased.

LUCAS, R., M.D., C.M., has been appointed Certifying Factory Surgeon for Dalkeith, vice Jefferiss, deceased.

M'KECHNIE, A., M.B., C.M., L.R.C.S.Ed., has been appointed Assistant Medical Officer to the Inverness District Lunatic Asylum, vice Weir, whose appointment has expired.

MACKENZIE, W. S., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Sharlston District of the Wakefield Union.

MADELEY, G. S., M.R.C.S.E., has been appointed Surgeon to the Hospital for Incurables, Ardwick-green, Manchester.

MARSHALL, J. S., M.D., C.M., has been appointed Medical Officer and Public Vaccinator for the Parish of Hamilton, Lanarkshire, vice Naismith, deceased.

NEWMAN, W. J., M.O.S.Gt. Brit., the founder of the Liverpool Dental Hospital, has been appointed a Consulting Dental Surgeon.

NORTH, S. W., M.R.C.S.E., L.M., has been appointed President of the newly formed Association of Medical Officers of Health of Yorkshire.

O'KEEFE, M., M.D., has been appointed second Examiner in Medical Jurisprudence at the Queen's University in Ireland.

ORCHARD, T. N., M.D., C.M., has been appointed a Medical Officer to the new Branch of the Salford and Pendleton Royal Hospital and Dispensary, Manchester.

PASLEY, A. C. B., L.R.C.P.I., L.R.C.S.I., has been appointed Resident Medical Officer to the Dover Hospital and Dispensary, vice Webb, resigned.

PHILLIPS, E. J. M., M.R.C.S.E., L.D.S., has been appointed an additional Hon. Dental Surgeon to the Liverpool Dental Hospital.

SMAILES, T., M.R.C.S.E., has been appointed Medical Officer to the County Constabulary, and to the Odd Fellows', Druids', and Gardeners' Friendly Societies, Honley, Yorkshire, vice Todd, deceased.

SMITH, R. D., M.R.C.S.E., has been appointed Resident Medical Officer to the London Hospital, vice Lewis Mackenzie, L.R.C.P.L., resigned.

STEWART, R. E., L.D.S. R.C.S.E., Senior Dental Surgeon to the Liverpool Dental Hospital, has been appointed a Consulting Dental Surgeon.

THOMAS, E. F., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Shepperton District of the Staines Union, vice Jones, resigned.

WESLEY, J. S., M.B., M.R.C.S.E., has been appointed Secretary and Treasurer of the newly formed Association of Medical Officers of Health of Yorkshire.

WILKINSON, T. M., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed a Medical Officer to the Lincoln General Dispensary, vice Lowe, resigned.

WISE, T., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the No. 2 District of the Northleach Union, and Medical Officer of Health for the No. 2 Sub-district of the Northleach Rural Sanitary District, vice Swan, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BRYANT.—On the 10th inst., at Sussex-square, the wife of John H. Bryant, L.R.C.P.Ed., of a son.

FARR.—On the 17th inst., at Slade House, Kennington-road, the wife of Geo. F. Farr, L.R.C.P.Ed., of a son.

HOFFMAN.—On the 17th inst., at Fulham, the wife of H. W. Hoffman, M.B., of a son.

NOAD.—On the 18th inst., at East Cowes Villa, Lower Norwood, the wife of H. C. Noad, L.R.C.P.L., of a son.

OLIVER.—On the 18th inst., at West-end-park, Harrogate, the wife of Geo. Oliver, M.D., of a daughter.

MARRIAGES.

BLYTHMAN—ELLIS.—On the 16th inst., at Thurnscoe, Clement S. Blythman, M.B., of Swinton, to Annie, only daughter of J. D. Ellis, Esq., of Thurnscoe Hall, Yorkshire.—No Cards.

HILL—NELSON.—On the 9th inst., at Sparham, Norfolk, T. Wood Hill, L.R.C.P., M.R.C.S., L.S.A., of West Cromwell-road, South Kensington, to Mary, daughter of the late Thomas Nelson, Esq., of Sparham.—No Cards.

DYER—BARTON.—On the 15th inst., at St. James's Church, Sutton, Macclesfield, Cheshire, Henry Gearey Dyer, M.R.C.S.E., L.R.C.P.Ed., of Ringwood, Hampshire, to Annie Louise, youngest daughter of the late Samuel Barton, Esq., of Parvey, Sutton.

M'DOWALL—CAREY.—On the 21st inst., at the Parish Church, Ryton-on-Tyne, Dr. T. W. M'Dowall, Northumberland County Asylum, Morpeth, to Alice, eldest daughter of H. C. Carey, Esq., of Elsinore, Denmark.—No Cards.

MACLAREN—CAMPBELL.—On the 15th inst., at St. Paul's Church, Carlisle, Roderick Maclaren, M.D., to Isabella Emma, youngest daughter of the late Rev. Duncan Campbell, of North Knapdale.

DEATHS.

BOWER.—On the 7th inst., at Wilmslow, Cheshire, Joshua Bower, M.R.C.S.E., aged 44.

CLARKE.—On the 5th inst., at Trincomalee, Wm. H. Clarke, M.R.C.S.E., Staff Surgeon R.N., aged 52.

COOPER.—On the 17th inst., at Woburn-place, Geo. L. Cooper, F.R.C.S.E., aged 65.

DEMPSEY.—On the 14th inst., at Charterhouse-square, Joseph M. Dempsey, M.D.

GELL.—On the 10th inst., at Southam, Warwickshire, Isabella Sarah, wife of Alfred Scott Gell, M.R.C.S.E., aged 38.

HIRST.—On the 16th inst., at Morley, Yorkshire, Lionel Hirst, M.R.C.S.E., aged 32.

POPE.—On the 16th inst., at Scarsdale Villas, Kensington, Catharine Eliza, wife of Edward Pope, M.R.C.S.E., L.M., of Tring, Herts, and mother of H. Campbell Pope, M.B., B.S., Queen's College, Birmingham.

RICHARDSON.—On the 18th inst., at Oatlands, Mortimer-road, Kilburn, Wm. Richardson, M.D., aged 64.

SMITH.—On the 12th inst., J. T. Smith, M.R.C.S.E., of Sutton-Coldfield, Warwickshire, aged 39.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

A RARE WINE.

AT a banquet given lately by the Board of Irish Lights to the officers of the Reserve Squadron of the Channel Fleet at Kingstown, among various dainties provided for the guests was some port wine which was on board Lord Nelson's ship, the *Victory*, at the battle of Trafalgar. That port wine or indeed any wine at that age could be worth drinking is a matter of opinion; but even the most inveterate temperance advocate might safely enjoy a beverage of the kind, as only the merest trace of alcohol would be likely to be present.

F. E. H. I.—Speaking generally, a marriage of such near consanguinity would be decidedly unadvisable. There may, however, be exceptional circumstances, such as the most perfect health on each side, which would minimise any mischief likely to ensue.

Mr. J. V. Solomon, (Birmingham.)—We do not publish communications that have appeared elsewhere.

PRACTICAL HINTS FOR THE SICK-ROOM.

NOTWITHSTANDING the way in which the training of nurses for the sick and the like has been discussed of late years, the subject still affords opportunity for an intelligent and shrewd observer to say something worth reading. *Chambers's Journal* for the 11th inst. has a short article, headed "Practical Hints for the Sick-room," in which the subject is touched with a light hand—presumably a lady's hand,—but with acuteness and good sense. To make a really good nurse requires suitable qualities of character and temperament; but whether a woman possesses these or not, she is pretty sure to have to discharge at some time or other the duties of a nurse, and it is something in her favour if she knows how to avoid being a worry to her patient and everybody else, instead of a help. Thoughtfulness is one thing, fussiness another, and there are a few practical points and considerations in the article to which we are referring which a lady will be none the worse for appreciating. We agree with the writer in protesting against the common practice of the amateur sick nurse making a "guy" of herself; but we think that a print dress is, on the whole, the best. There is much truth in the remarks on that over-zealous, excitable variety of nurse, who insists that she can keep up, but is always hinting, nevertheless, that she must inevitably break down in time—a kind of self-sacrifice that is always acting as its own bill-poster.

Mr. Jewitson, (Newcastle.)—It shall be kept in mind.

POISONING BY SIX GRAINS OF STRYCHNIA; RECOVERY.

To the Editor of THE LANCET.

SIR,—I was called on August 31st to see Miss ——. When I arrived my friend Mr. Cambridge (who was in charge of the case) informed me that a poisonous dose of strychnia had been taken in the form of vermin-killer. At about 3.30 P.M., after a good dinner, it had been swallowed. About 4.30 P.M. it was discovered by her friends, who, not knowing what she had taken, commenced to walk her quickly up and down a passage till the tetanic spasm became so severe that she was no longer able to walk. About 5 P.M. she was found by us lying upon the couch in her bedroom, her face ghastly pallid, covered with perspiration, wearing an expression of fearful mental agony, in the apprehension of death. She was thrown into violent clonic spasm by sound or movement, even of a slight nature, especially if that sound or movement were sharp. The spasm, too, was general, and when the seizure was at its height there was well-marked opisthotonos and fearful muscular pain, with great diminution of respiratory movement. Mr. Cambridge, I found, had already administered one scruple of sulphate of zinc. This quickly acted. The first vomit was of a bluish colour. We then supplied her with warm drink, encouraging her thus to continue vomiting. I hoped to empty the upper part of the small intestine. When the emetic action had ceased, we administered tincture of conium, one drachm; tincture of belladonna, forty minims; water, one ounce. The belladonna was then continued in ten-minim doses every quarter of an hour till one drachm ten minims had been given. The expression was now less horror-struck, the pupils were dilating, and spasms less marked, but still severe. Doubting the propriety of giving any more belladonna, I immediately commenced the inhalation of chloroform. To my great satisfaction the fits grew less and less marked, till after two hours' administration they had almost entirely ceased. Her reflex functions were, however, greatly exalted. For hours, if the bedstead were touched suddenly, there was more or less spasm. She is now well.

I find upon inquiry at the chemist's who sold the vermin-killer that she took "six grains" of *strychnia!* and *this amount can be purchased by any adult of respectable appearance who gives a satisfactory reason for the purchase!* Now, is the sale of poisons to be restricted? How is it possible to carry out the measures for this end if poisonous doses of strychnia can be bought for a few pence under another name?

I remain, Sir, yours truly,
C. LAMMIMAN, L.R.C.P.I., &c.,
September, 1875. House-Surgeon, Tunbridge Wells Hospital.

Medical Officer.—The unpopularity is due, among other things, as Dr. Lush pointed out in the House of Commons, to the state of uncertainty as regards everything connected with the position of the medical officers, consequent upon the frequent issuing of warrants, and the cancelling of the provisions of some immediately afterwards by circulars; taking away from the medical officer to-day what was given to him yesterday. Mr. Hardy has done nothing yet to relieve the existing tension, and medical officers must for the present be content to remain in a state of expectant attention.

INSURANCE AGAINST SICKNESS.

To the Editor of THE LANCET.

SIR,—Seeing the letter of "Nemo" in your impression of Sept. 4th in reference to having a Sick Club in connexion with the profession, I am sorry to say there is no such Society in existence. It would, however, be very easy to get up one, and it could be registered under the new Friendly Societies Act without any expense whatever. I would propose to form a Society, age of admission from twenty-five to fifty, allowing £1 10s. per week in illness or accident, with £30 at death; £2 per week and £40 at death; £4 per week and £80 at death; half benefit in six months, full benefit in twelve months, after joining the Society. The sick pay to continue for twenty-six weeks; half pay for twenty-six weeks longer; after that to be reduced to quarter benefit. Having been connected with large Industrial Insurance Companies for some years, I shall be most happy to draw up tables for the formation of a Sick Fund in connexion with the profession; and if "Nemo" and any other gentlemen will join in the establishing such a Society, I shall be glad to have their names and addresses in next Saturday's LANCET. Yours very truly,
September 6th, 1875. L.S.A.

P.S.—It would require a Committee of at least twelve members to meet once a week, having a chief office in London. All premiums should be paid quarterly in advance.

INFECTED LINEN.

DR. SEDGWICK SAUNDERS, in a recently issued report on the Sanitary Condition of the City, states that a striking illustration of the mode in which disease might be spread by washing infected linen had arisen within the last few days, and it might serve as a warning to mention the following details. Two children of a City policeman had passed successfully through an attack of scarlet fever, and upon their recovery the clothes and bedding they had used were sent to the laundress to be washed. That woman had two children, who at the time she received the articles were in perfect health. Shortly afterwards both were seized with scarlet fever, and passed through its various stages, happily without fatal results. In view of the serious consequences which might and often did accrue from the too frequently culpable indifference shown in mixing the clothing and bedding of infected persons with those of the healthy, he had taken some pains to investigate the facts of the case in order to ascertain how far there had been any infraction of the law, which directs certain penalties against any person who should by negligence or want of reasonable precaution favour the spread of infectious diseases; and having ascertained that the father of the children first attacked gave notice to the laundress of the circumstances attending their illness, he did not recommend any further steps to be taken in the matter.

Mr. Thomas is thanked for his courteous communication.

AN APPEAL.

To the Editor of THE LANCET.

SIR,—May I ask you to find room in your columns for the following sad case:—

W. H. Goodchild was for many years dispenser to the Metropolitan Dispensary, where he earned the esteem of the staff and the affection of the patients. He had entered as a student at St. Bartholomew's Hospital, and, in spite of the many other calls on his time, he had, in April last, passed the primary professional examination of the College of Surgeons. On Saturday, Sept. 4th, after finishing his dispensing, he complained of lassitude and sore-throat; the next morning the rash of scarlatina appeared, and on Wednesday he sank, the poison of the disease being too much for a body borne down by overwork. The most lamentable feature of the case is that he leaves a widow and three children (with an addition expected) to subsist on the produce of a small life policy. In the hope that some of your readers may be induced to come to the assistance of the family so suddenly reduced from comparative comfort to the verge of want, I have ventured to trespass on your space.

Subscriptions will be most thankfully received by the Manager of the London and County Bank, Aldersgate-street Branch; by Dr. Southwood at the Metropolitan Dispensary, Fore-street; and by,

Your obedient servant,
F. DE HAVILLAND HALL.

6, Bedford-place, Russell-square, Sept. 11th, 1875.

*** The case brought under the notice of the profession by Dr. Hall is a sad one, and will we hope evoke the sympathy and practical support of those members who, in affluent circumstances themselves, have little conception how sorely the battle of life presses on their less fortunate brethren, or of the privations and distress frequently endured by their bereaved families. Our columns are never closed to appeals of this nature, and we are pained that the necessity for making such appeals arises so frequently.—ED. L.

M.D.—An establishment employing six girls is distinctly under the Workshops Act, and subject to inspection by the Factory Acts staff. The particulars should be forwarded to the Chief Clerk, Factory Inspector's Office, New Home Office buildings, Whitehall, who will furnish all necessary information.

THE PENETRATING POWER OF SALT.

To the Editor of THE LANCET.

SIR,—A strong solution of salt and water was left standing all night in a ware jug, *glazed both inside and out*, and in the morning the outside of the jug was found to be thickly covered with crystals of common salt. The experiment was repeated the next night, great care being taken to dry the outside of the vessel, and in the morning the crystals were again found on the outside of the jug over a surface exactly corresponding with the amount of water in the jug. It shows the great power of penetration which is possessed by salt, and consequently I think it must be considered of great value as a local remedy in cases of gout, rheumatism, &c.

I am, Sir, yours truly,
September, 1875. A. B.

A Constant Reader.—It is usual to make charges in such cases, although we are aware many practitioners, actuated by motives of generosity, never think of sending in a bill for attendance and medicines, except under special circumstances.

P. E. P. H. should consult a medical practitioner.

THE TREATMENT OF TUMOURS OF THE LYMPHATIC GLANDS.

To the Editor of THE LANCET.

SIR,—I have received a letter from Mr. Coates, Surgeon to the Salisbury Infirmary, stating that he has for many years employed iodine subcutaneously in treating enlarged glands and various other tumours, and refers me to a paper in the *Medical Times and Gazette* for Nov. 2nd, 1867, in confirmation of this statement. I much regret that I was not aware of Mr. Coates's priority in this matter, as I find I have unintentionally taken credit to myself for what he had in almost every particular described eight years ago, and I write now in the hope that I may be able to undo the wrong I have done him in claiming this plan of treatment as a discovery of my own.

I am, Sir, yours &c.,
Manchester, Sept. 14th, 1875. S. MESSENGER BRADLEY.

QUACKS IN LIVERPOOL.

OUR contemporary the *Globe* shows that Liverpool is especially infested by quack doctors. An auctioneer's services were recently called for by a cobbler who had agreed to purchase the business and stock-in-trade of a certain quack. For the goodwill £300 was charged, but the drugs had to be taken over at a valuation. On inspecting these, the auctioneer found them to consist of about 500 pills made of Windsor soap, coated with silver, and some bundles of dried parsley and mint. In addition to these valuable goods, a number of foreign diplomas were to go with the business, although the outgoing "doctor" could neither read nor write. Another correspondent describes the *modus operandi* by which some of these unscrupulous cheats manage to pluck their victims. A patient waits upon one of the fraternity, and describes his symptoms. The quack shakes his head, and assumes a very serious look. "Yours is a very bad case, very bad indeed," he says, fingering away at his visitor's pulse; "I cannot take upon myself to treat it without professional assistance." Of course, the victim, terrified by this alarming diagnosis, at once consents to have a regular physician called in, who in due time makes his appearance, consults with the quack, pockets a guinea fee, and takes his departure. It is needless to say that this eminent authority is no more a physician than the quack is a doctor, the two being equally ignorant of medical matters. In one case the physician was even discovered to be the barman at a neighbouring pothouse, who, on receiving notice from his accomplice, would slip off his white apron, don a black coat, and assume a solemn air, preparatory to consulting with his learned friend. In another instance a quack, who has advertised himself for years as "Dr.," and who has "M.D." painted after his name on the door of his house, possesses only the most elementary education, being barely able to spell words in one and two syllables.

Dr. Corfield.—The arrangement proposed will do very well.

FEVER IN HURDSFIELD.

To the Editor of THE LANCET.

SIR,—In your impression of last Saturday, in correcting a clerical error, you state that the Vicar of Hurdsfield (Macclesfield) refused to close his schools at the demand of Mr. George Bland, medical officer of health, during an outbreak of scarlet fever, but you make no mention of any reason on his part for so acting.

I think it only right, therefore, to explain that Mr. Handcock, the Vicar, was only acting on the advice of a large majority of the medical men of the town, who signed a memorial to the effect that they considered the children far more safe from infection in the clean, well-ventilated, and well-drained Hurdsfield schools than in the dirty, insanitary state of their own homes. That the schools were in a proper state was proved by the detailed report of the sanitary inspector, who investigated into the matter, and who certified that there was no defect whatever in the drainage of the place, and that it was clean and well ventilated. I may add that the memorial before mentioned was signed (with the exception of Mr. G. Bland and his father, Mr. J. Bland) by the whole of the staff of the Macclesfield Infirmary.

Having while on a visit to Mr. Handcock been over the schools in question, I can most thoroughly endorse the fact of their thorough cleanliness and ventilation, and feel sure that one visit would be enough to convince anyone (both by sight and smell) of the filthy and unhealthy condition of a great number of the houses in the parish. That the epidemic ever did really originate or increase through the schools, no satisfactory proof was ever brought, and no one who knew the facts of the case thoroughly could ever assert truthfully that Mr. Handcock ever did, or could, want to obstruct the medical officer in his work.

I am, Sir, yours faithfully,

LEIGHTON KESTEVEN.

Verulam Club, St. James's-street, S.W., Sept. 20th, 1875.

POPULATION IN EUROPE.

THE *Revue Scientifique* states that in Europe there is an increase of population in every State; but this augmentation is not constant, and decreases gradually. Thus, in France, during the ten years comprised between 1821 and 1831 it was 0·69 per cent.; from 1831 to 1841 it fell to 0·50 per cent.; from 1841 to 1851 to 0·46 per cent.; and from 1851 to 1861 to 0·26 per cent. In England for the same period, the figures were respectively 1·46, 1·35, 1·19, and 1·20 per cent. In Prussia, from 1817 to 1828, it amounted to 1·71 per cent.; from 1828 to 1840 to 1·35; from 1840 to 1846 to 1·27; and from 1846 to 1864 to 1·09 per cent. In the following table, compiled by M. Maurice Block, the present annual increase in each country is given, together with the number of years in which the population would be doubled if the same ratio continued:—

Countries.	Annual increase per cent.	Years.
Russia	1·39	50
Scotland	1·31	53
Sweden and Norway	1·30	53½
England	1·29	54
Prussia	1·13	61½
Saxony	1·10	63
Denmark	1·09	64
Wurtemburg	1·04	67
Spain	0·89	78
Italy	0·70	99
Ireland	0·59	118
France	0·35	198

Inquirer. — Lord Blachford's article on Prof. Huxley's hypothesis that animals are automata will be found in the *Contemporary Review* for the present month.

Mr. Osborn Walker.—Certainly not. It would be illegal.

MEDICAL EXTRAS.

THE guardians of St. Pancras are chafing at the great increase of expenditure incurred by the consumption of "medical extras" in the St. Pancras Workhouse. The following is described as the average dietary allowance for one week of an inmate receiving these extras, which, we confess, is by no means illiberal—viz., 5½ lb. of bread, 3½ lb. of eels, 3½ lb. of meat, 14 eggs, 14 pints of tea, 3½ lb. of rice pudding, 8 oz. of butter, 7 pints of milk, 3½ pints of porter, 14 oz. of arrowroot, 14 oz. of sugar, 42 oz. of whisky, and 14 lemons. It is added that sometimes the diet varied, the eels being substituted by soles or poultry. To buy all these things, it was stated, in the ordinary way would cost 20s. per week, but even at the contract prices they cost over 15s. It was asserted that the "medical extras" reached during the year £2064; that the consumption of brandy had increased from £143 in 1871 to £451 in 1875; that the expenditure in gin had increased by 140 per cent.; and that whisky, an item never previously known, had cost £117. Fish had increased from £15 to £127; and the speciality of eels, not known before, had cost £14. As the medical officer, Dr. Hill, held out no hope of any reduction, arguing that the increase of extras was owing to the changed character of the cases in the house, the committee of guardians feel they have no power in the matter. A motion to send the whole matter to the Local Government Board has been carried.

Hope, (India.)—We do not think it advisable to notice the subject. Our doing so would only give it a prominence which it does not merit.

MENINGITIS AND ORCHITIS AFTER MUMPS.

To the Editor of THE LANCET.

SIR,—The following case may be considered of sufficient interest to have a place in your columns.

Mr. B—— is a muscular, active man, aged twenty-eight. His uncle when twenty-two years old had mumps, which went to the testicles and brain; three adult sisters and one brother (aged nineteen) have had this disease; in the brother's case orchitis followed. No discoverable source of infection. On the 10th July, after an exhausting day, he sat out the evening, and slept in his wet clothes. On the next day he fainted in church; sickness; hepatic tenderness; tongue furred; headache.

July 12th.—Feels better; deglutition difficult and painful from stiffness.

13th.—Well-marked swelling of both parotids.

17th.—Swelling of parotids has disappeared; left testicle tender.

18th.—Well-marked orchitis of left testicle.

19th.—Face flushed; expression of great pain; nausea; tongue dry, yellow, and glazed; bowels confined; skin dry; shooting pains across forehead and at back of eyes, muscæ, flashes; delirium; no sleep; feels as though a great weight were pressing on his head; general hyperæsthesia; does not complain of testicle, which seems in the same condition. Temperature 103·6°; pulse 96, small and hard.

20th.—Morning temperature, 102·9°; pulse 96. Evening temperature, 103°; pulse 96. No sleep; pain general over head; any movement increases it; cannot bear the light; testicle tender, but not painful; sweats profusely; complains of nose feeling hot.

21st.—Morning temperature, 101·7°; pulse 72; respiration 21. Evening temperature, 102°; pulse 78; respiration 20.

22nd.—Morning temperature, 99°; pulse 84. Evening temperature, 98·5°; pulse 54. Epistaxis; profuse sweating; sudamina; pain in head gone.

23rd.—Pulse 52.

25th.—Pulse 48. After this the pulse gradually rose in frequency.

Aug. 2nd.—A servant in the house has mumps.

I remain, Sir, yours truly,

September, 1875. M. S. DUKE.

Dr. Berridge, (Highbury.)—We have failed to discover any Transactions of the Royal Medico-Botanical Society of London, and we suspect that the only record of its proceedings extant is that to which our correspondent refers—viz., in the pages of the *London Medical and Surgical Journal*, which was edited by John Foote, who was also one of the Secretaries of the Society. In his "Autobiographical Recollections" the late Mr. Clarke has devoted a chapter to the history of the rise and fall of this curious Society, which only existed during the tenure of office of its first President, Lord Stanhope. Perhaps some of our readers who were members of it may be enabled to inform our correspondent whether any Transactions or MSS. of the Society are in existence.

Z. Y.—Certainly.

Dr. W. Alexander's paper on "Progressive Muscular Atrophy," &c., has been received, and will shortly be published.

AN IDEA.

To the Editor of THE LANCET.

SIR,—Immediately I heard of Mr. Darwin's experiments with insectivorous plants, it occurred to me that the principle or principles in virtue of which these plants dissolve albuminous substances might possibly be found useful, as pepsine is, in assisting the digestive powers of the human stomach. This idea must have occurred to many others as well as to myself. But have any steps yet been taken with the view of ascertaining whether it can be turned to any practical account? Your obedient servant,

Sydenham Hill, Sept. 5th, 1875. F. CHANCE.

Mr. W. B. Holdernesse, (Huntingdon.)—Almost any maker of chemical apparatus could supply what is necessary. It would not be fair to mention the names of individual firms.

Dr. Swift Walker is thanked.

M. A.'s letter respecting our Public Schools Commission must have his name attached. An anonymous communication would have no weight.

Dr. Bell Taylor.—If possible.

Mr. Robson.—The mistake has been rectified, as our correspondent will find if he will refer back.

AMERICAN DEGREE BROKERS.

THE following letter is sent to us for publication. It was written to one of the assistants of a leading firm of druggists:—

"Packington College, 145, Packington-street,
London, N., Sept. 2nd, 1875.

"MY DEAR SIR,—I can influence you the diploma of A.M. and Ph.D., or B.Sc. or D.Sc., &c., from several Universities in the States; and if you will call here between four and eight or *any time* by appointment, or state a time when you wish me to call on you, I can show you the documents, and give you every information; or if you send the fee (£15), I will send the document at once, with the registration certificate, &c. &c.

"Yours very truly,
"E. STURMAN.

"P.S.—You can arrange with me as regards money matters."

Apropos of this subject, we publish from *The Times* the letter of his Excellency the Minister of Education at Washington, in reply to Mr. A. L. Sparkes, of Shelton, Stoke-on-Trent, who had very happily forwarded to that distinguished functionary the letter of that mysterious person in Jersey who considerately caters for those who want degrees *in absentia* at the small cost of £20:—

"Department of the Interior, Bureau of Education,
Washington, United States, August 18, 1875.

"SIR,—Your letter of the 1st inst., enclosing a communication from Dr. ——, dated the 16th of July, 1875, and offering to procure the degrees of Ph.D. and M.A. from the University of Philadelphia for the sum of £20, was received on the 16th inst. In the absence of General Eaton, Commissioner of Education, I sent the documents in question for the examination of Hon. J. P. Wickersham, Superintendent of Public Instruction of the State of Pennsylvania. The Charter of the University of Philadelphia was revoked some two or three years ago on account of the notorious and shameless sale of degrees and similar rascalities. It has no actual or legal existence.

"Allow me to assure you, Sir, that no respectable institution of learning in the United States confers degrees for money. If degrees are conferred at all they are granted with other motives than pecuniary gain. The reason why this particular fraudulent institution has been successful is because the University of Pennsylvania, whose name it imitates, is an institution of great corporate wealth and high intellectual character.

"I return Dr. ——'s letter after taking a copy of it.

"I am, Sir, very respectfully, your obedient servant,
"CHARLES WARREN, Acting Commissioner.

"To A. L. Sparkes, Esq., B.A., Shelton,
Stoke-on-Trent."

A DIRECTORY OF QUALIFIED VETERINARY SURGEONS.

To the Editor of THE LANCET.

SIR,—May I suggest through your columns to the Editor of the Medical Directory the desirability of appending a carefully prepared list of all properly qualified veterinary practitioners. It is important to country practitioners at least to know what "vets" are legally qualified, as it is presumed that no medical man would knowingly employ an unqualified person.

Yours truly,
Shepton Mallet, Sept. 15th, 1875. F. PORTER SMITH.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir J. Alderson, London; Prof. Gamgee; Sir L. M'Clintock, Portsmouth; Dr. Broadbent, London; Dr. Fothergill, London; Dr. Speedy, Dublin; Mr. Burdick, Chertsey; Dr. Branwell, Brighton; Mr. Sedgwick, London; Dr. Corfield, London; Mr. Kesteven, London; Mr. G. Brown, London; Mr. Robson; Mr. Thoms, London; Dr. Mackintosh, Chesterfield; Mr. H. Ormond, Westbury; Mr. Innes, London; Mr. Walker, Hanley; Mr. Maunder, London; Dr. Mahomed, London; Mr. Reid, Stafford; Mr. J. Martin, Woodford; Mr. J. Robinson, Chester; Dr. Addy, Pendleton; Mr. Morton, London; Mr. Rendall, London; Mr. Davies, Corwen; Dr. Taylor, Nottingham; Mr. Jeaffreson, Newcastle-on-Tyne; Mr. Richardson, Dover; Mr. Stewart, Leith; Mr. Taylor, Hornsey; Dr. Hopkins, Llantrisaint; Mr. Lewis, Burnley; Mr. Brooks, London; Dr. Walker, Aldborough; Dr. Macpherson, Chichester; Dr. Walker, Maidford; Dr. Frodsham, Upper Streatham; Dr. C. White; Dr. Cochrane, Port Patrick; Mr. Giles, Stanton-on-Wye; Mr. Needham, Gloucester; Mr. Prichard, St. Leonard's; Mr. Walker, London; Miss Halker, Lytham; Messrs. Bernard and Co., Leith; Mr. Hall, Thurso; Mr. R. D. Smith, London; Union Surgeon; Z. Y.; Alexis; H. F. P.; E. H.; Delta; M. A.; F. E. P. H.; Chirurgicus, West Bromwich; Hope; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Mr. Harris, Leighton Buzzard; Mr. Sunderland, Birmingham; Mr. Somerville, Edinburgh; Mr. Carruthers, Coundon; Mr. Stead, Silverdale; Mr. Robinson, Ditchling; Mrs. Miles, Cardiff; Mr. Martin, London; Mr. R. Hordley, Hartshill; Dr. Maclaren, Edinburgh; Mr. Steele, Stoke; Mr. Butler, London; Dr. Hains, Norwich; Mr. Miller, South Brent; Mr. C. E. Ellis, Rotherham; Mr. Davies, Moriston; Mr. Moore, Cheltenham; Mr. Gell, Southam; Mr. Garforth, Sheffield; Mr. Jones, Llanfyllin; Mr. Green, Hoyland; C. R.; M.D., Bishop Auckland; Medicus, Burham; C. H. T.; Chirurgus; C. M., Waterford; M.D., Bath; W. M. S., Tunbridge Wells; Medicus, Leeds; F. W., Bushey; G. N., London; An Enquirer; F. T. B.; F. W.; B. A., Portmadoc; Ferri; J. S., Oldham; M. A., Aberdare; J. B.; E. L. O.; J. M. P.; W.; J. C. P.; R. N. M.

Surrey Advertiser, Birmingham Morning News, Leighton Buzzard Observer, Newcastle Chronicle, Manchester Guardian, Metropolitan, Edinburgh Daily Review, Cork Constitution, Huddersfield Chronicle, Western Morning News, Liverpool Post, East London Observer, Western Daily Press, Record, Merthyr Express, Grimsby Observer, Daily Bristol Times, Saunders's News-Letter, and *Isle of Man Times* have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, SEPT. 23RD, 1875.

Date	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia in Vacuo	Max. Temp. Shade	Min. Temp	Rainfall.	Remarks at 8 A.M.
Sept. 17	30·09	E.	60	62	105	77	56	0·24	Raining
„ 18	30·07	E.	59	60	107	81	58	...	Misty
„ 19	30·00	E.	65	70	105	80	59	...	Fine
„ 20	30·00	W.	57	60	105	72	57	0·10	Misty
„ 21	29·93	W.	58	60	75	67	57	...	Overcast
„ 22	29·65	W.	63	63	80	70	59	0·64	Overcast
„ 23	30·11	E.	54	56	...	...	55	0·12	Overcast

Medical Diary for the ensuing Week.

Monday, Sept. 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Sept. 28.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Sept. 29.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Sept. 30.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Oct. 1.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Oct. 2.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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N.B.—All letters relating to Subscriptions or Advertisements should be addressed to the Publisher.

Agent for the Advertising Department in France—
Mons. DE LOMINIE, 208, Rue Grenelle St. Germain, Paris.